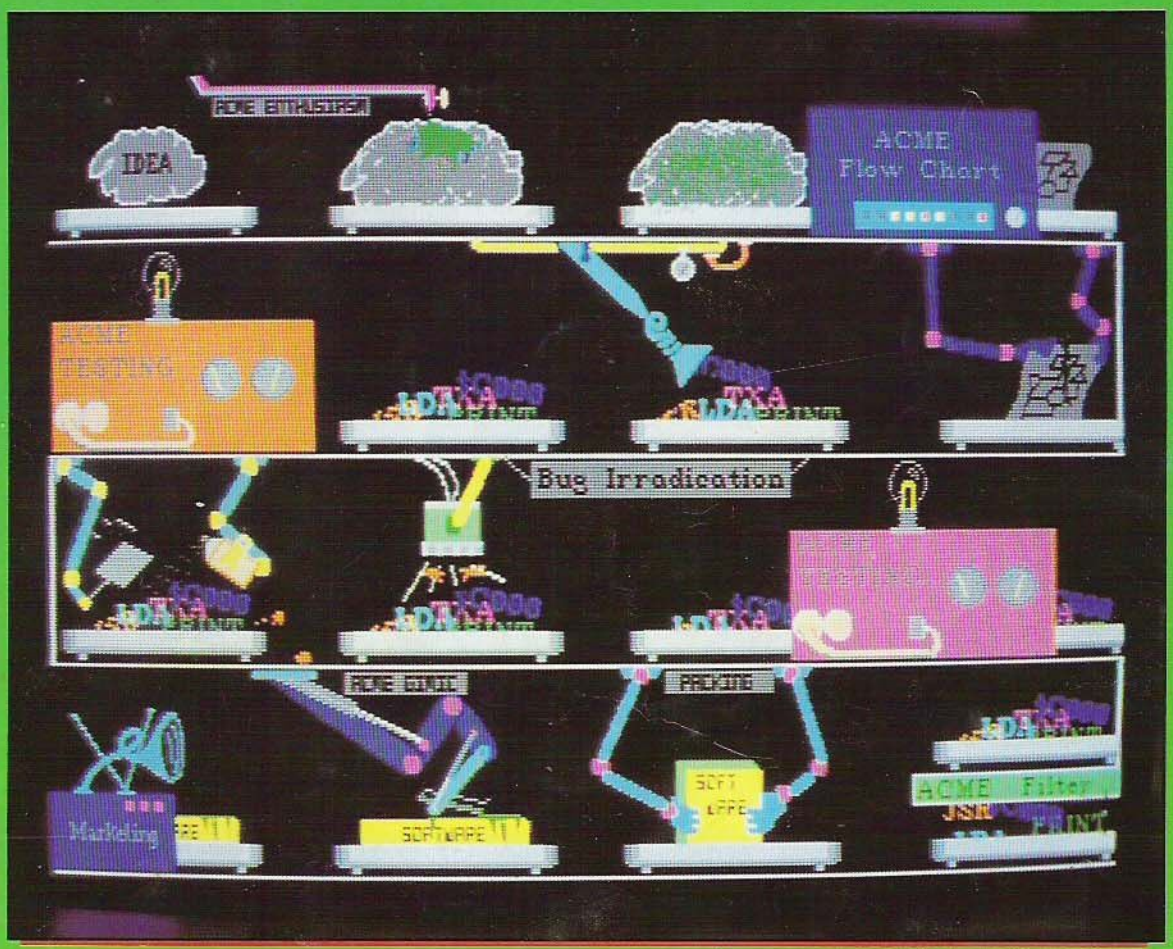
Vol 6 No 3

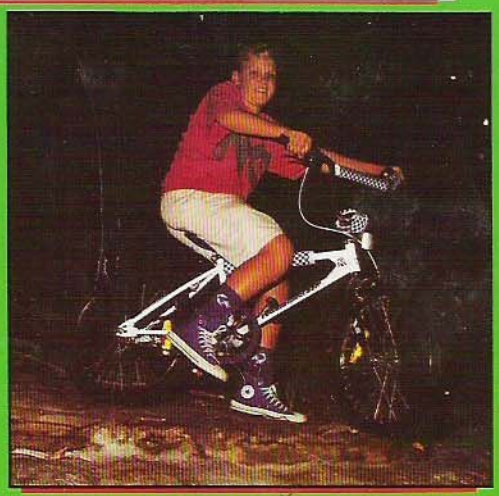
March $3.50*

The Australian COMMODORE and AMIGA REVIEW

Making Australian software



- Sherlock Super Debtors
- Full list of Amicus disks
- 6 game reviews
- Amiga Fast File System
- 128 wordprocessing plus comparison chart
- Basic and C tutorials



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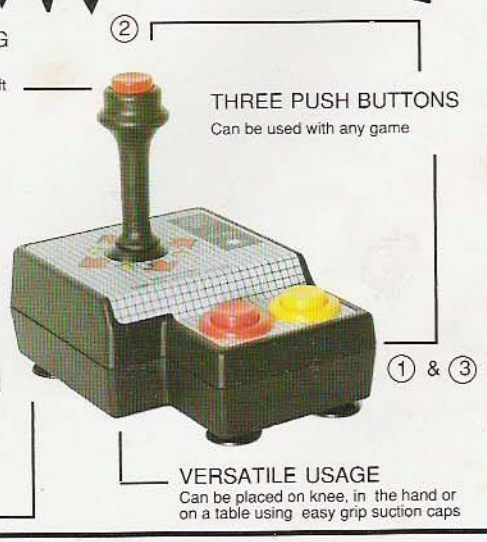

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The Australian COMMODORE and Amiga Review

VOL. 6 NO. 3 March1989

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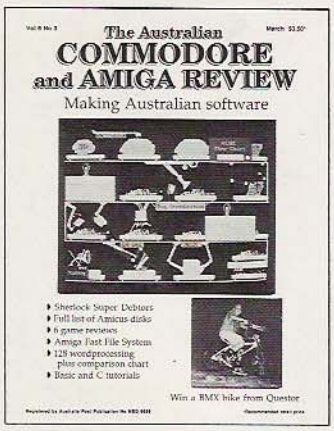

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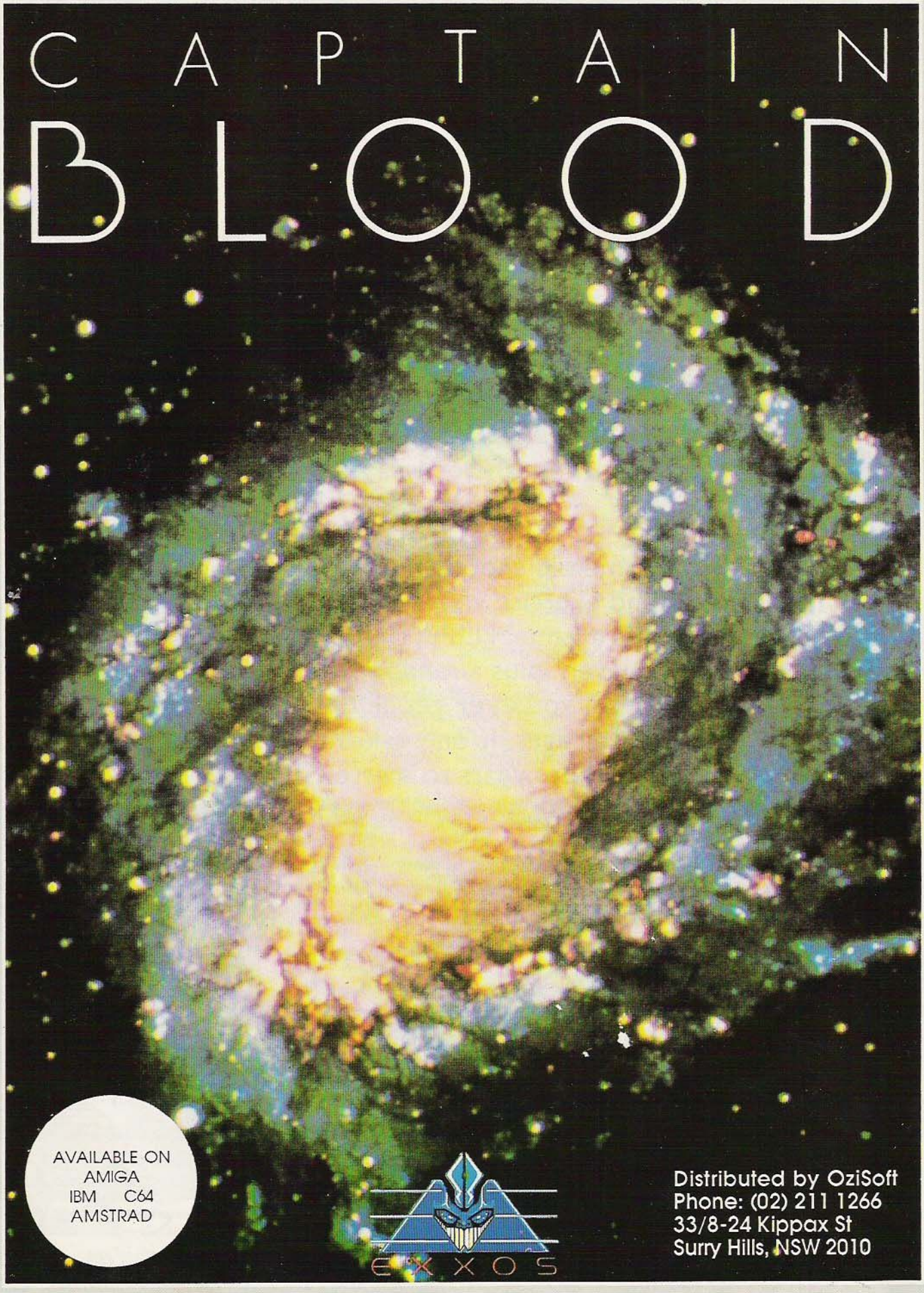
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Editorial

One of our devout readers recently approached a leading retailer of Commodore peripherals with our recommendation of the Multi-Coin Starcursor joystick. He was met with a very unfavourable reaction. The salesperson suggested our reviews were paid for, that the product was junk, and *Commodore Review* wasn't worth its salt.

Fortunately our reader didn't take these comments to heart, and contacted us with the store's criticism to find out the other side of the coin. Here's the facts.

Strange as it may seem, many leading retailers will not stock the Starcursor joystick. Why? It's too good, they say. The customer won't be back for a replacement in six weeks. To me, that is a very sad way to take advantage of peoples' ignorance.

The very fact our reader approached the store with our recommendation shows people do take notice of our reviews. Secondly, not one review is paid for. We often upset our advertisers, and have a strict policy of giving credit where credit is due, and brickbats where they must be thrown. *The Australian Commodore and Amiga Review* is an independent publication.

About the only thing the salesperson in question can be sure of is that more discredit was done to the store concerned than was done to us. We pride ourselves in helping end users. We *are* end users. I paid $399 for my Vic 20, and $699 for my Commodore 64. This magazine is all about you. We are on your side. Thanks to those readers who stick up for us.

In closing I can honestly say the Multi-coin Starcursor joystick represents one of the best made, value for money joysticks around. I use mine to death. Anyone who thinks any differently should have good reason. May I suggest to the salesperson concerned that if you get the chance to read this editorial, I would love to hear why you think the Starcursor is so bad. ■

Andrew Farrell

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COMMODORE and AMIGA REVIEW

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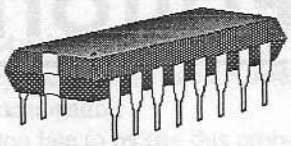
RAM Rumbles



Feast or famine

This month we are enjoying a feast of information from Commodore in the form of press releases, general co-operation, and an overall overwhelmingly helpful attitude. Is this the turning over of a new leaf, or a whole new forest? Will this shake up of press relations lead to improved public relations? All the indicators are green, and Commodore is looking ahead to improve things. Read on for the good oil on what's happening.

Commodore International First Quarter Report

First, some official business. The whys and wherefores of big business. These figures have no doubt made it possible for Commodore's world wide trend toward better customer relations.

Commodore reported continued growth in sales and earnings, reflecting increased worldwide demand for the Company's computer products. For the first fiscal quarter ended September 30, 1988, sales were $200.2 million, a 15% increase over sales $173.9 million in the prior year quarter.

The increase in sales is attributable to broadbased growth in demand for all product families - the Amiga computers, the MS-DOS PC compatibles and the traditional C64/C128D computers. Compared to the year ago quarter, sales increased in all three product categories, and in all three major geographic markets - Europe, North America and Australia - demonstrating the growing appeal of Commodore computers to a wide range of end users.

The growth in earnings largely resulted from further improvement in Commodore's profit margins, as operating efficiencies and a shift in product mix helped to raise gross margin to 32% from 28% in the year ago quarter. Operating expenses increased as the Company expanded advertising and marketing expenditures in selected countries to support further market penetration and development.

Irving Gould, chairman of the Board and Chief Executive Officer, commented, "We are encouraged by the continuing improvement in operating and financial performance, but remain mindful of the challenges that lie ahead. We are committed to maintaining our growth momentum through the aggressive marketing of competitively priced, superior performance products throughout the world."

Dealers - pull your socks up!

We often read of complaints from customers who have received less than satisfactory service. Commodore is doing something about this problem. It's a tough move, but one that should get a few rethinking their position.

Mr. Tony Serra, Managing Director of Commodore Computer Australia and Asia/Pacific said, "The last twelve months has seen the failure of many computer dealers, large and small, in the market place. As an industry we have got it wrong. The balance between support, sales training and box moving is not there. Price appears to be the governing factor. We realise the problem and intend to rectify it within Commodore's own distribution channels."

As a result Commodore has taken strategic action, and is in the process of sending over 100 letters to dealers around Australia, putting on notice the pending cancellation of their distribution agreement. Commodore only wants to deal with committed businesses which are able to offer superior service to end users, in whatever market segments they address.

This is a bold step for Commodore, however it is firmly believed that the future of the computer industry depends entirely on getting the distribution channel organized and profitable. The reseller must be capable of buying stock and selling it profitably within realistic trading terms. Their offer should be a profitable mixture of price, service and support.

Tony Serra concluded, "If we can get this involvement in their business management right, we at Commodore will continue to grow against last year."

We wait in earnest to see who goes and who stays. Perhaps a bit of reader feedback could help? We would like to hear from people who've had both good and bad experiences with a particular dealer. Write to the editor.

Commodore Australia hits A$100 million

Tony Serra, Managing Director of Commodore Computers Australia and

Asia/Pacific, remembers 19 May, 1986 as the beginning of a turnaround in Commodore Australia's history.

The local reorganization, and a five year plan to reach A$100m was implemented, with calendar 1988 realizing A$134m gross sales, and a higher than expected penetration of the Amiga and MS DOS markets, and a maintenance of the 6502 market.

Today, Tony Serra announced that the target has been reached, two and a half years ahead of the projected schedule. "43% increase in the first quarter was a good result, we have not consolidated our sales for the second quarter with a 90% increase.

"Christmas sales and across the board increases, including C64, Amiga, PC Colt and PC 10 III, and the injection of $3m from our recently established Commodore Business Machines division, have been responsible for this excellent result," Serra continued.

Serra commented that the points put in place in 1986, which included more product, higher levels of service and aggressive market penetration, had all been adhered to strictly by his strong, innovative and progressive marketing team. In 1986 Commodore were talking about a dealer delivery base in the Amiga product range of 3,000 units, and in 1988 can talk about a base of 56,000 units. There is no reason to believe that the growth of Commodore in Australia will not continue to outstrip its competitors.

CSIRO choose Commodore for education

Commodore Business Machines has agreed to supply computers for use in CSIRO Science Education Centres in Sydney and Melbourne.

Mr Ross Kingsland, Manager of CSIRO Education Programs, said "The programs to be used with these sponsored computers epitomize the role of our Education Centres. The two Commodore Amiga 2000 computers will enable students to experience:

- current CSIRO research;
- the latest technology;
- their applications in the community

The CSIRO programs will also effectively demonstrate the capacity of the Amigas to well over 16,000 visitors to the Melbourne and Sydney CSIRO Centres each year.

One program produced by the Division of Oceanography in Hobart involves data on the infrared levels of the oceans surrounding Australia. The data is received by CSIRO from the NOAA polar orbiting environmental satellite and is used for commercial fishing and ocean yacht racing, as well as for scientific uses in oceanography and marine biology.

Another program developed by the Division of Mathematics and Statistics allows students to use the latest remote sensing technology to zoom in on their own cities, down to street level, to learn about the many uses of the A-Image System. Using Landsat data, this system has many applications in agriculture and forest management, environmental monitoring, mineral exploration and disaster monitoring.

These programs will alert students to a whole new area of Australian activity, space science, and its growing part in our lives. By manipulating data provided, students will be able to understand what information is obtained and how it is used. These future decision makers and scientists will at least know that remote sensing is more than touching an object at arm's length with their eyes closed!!

The Division of Human Nutrition in

Update

I have just heard the most disturbing rumours. It appears that some software importers have not dropped their recommended retail prices in line with the recent sales tax cuts. I think this is particularly disgusting especially when the value of our dollar has gone up as well which should mean savings on most software of a minimum $5 - $10 and on more expensive software $20 or more. This attitude, which is prevalent in many other industries, and has seen practically no retail prices dropped on anything despite the rise in our currency, is, I believe, an indication of nothing but "greed", which I feel eventually backfires.

We have a fascinating new Joystick to offer which is probably one of the most comfortable I have ever used. It has a ball shaped grip, is fully microswitched, has auto-fire, and even three speeds. It is another of the great Challenger series from Pactronics and it is model no. RMT120.

Other new products I may not have mentioned to you are the two new Amiga books - **AMIGA C FOR BEGINNERS** and **AMIGA DOS QUICK REFERENCE GUIDE**, and for those of you who have the books, I am pleased to announce we have companion disks for the following:

- AMIGA BASIC INSIDE & OUT
- AMIGA DISK DRIVES INSIDE & OUT
- AMIGA SYSTEM PROGRAMMERS GUIDE
- AMIGA TRICKS & TIPS
- AMIGA DOS INSIDE & OUT
- AMIGA C FOR BEGINNERS

We now have stocks of the Commodore 64 **VOICEMASTER JUNIOR** which is a fantastic product that allows you to talk to your computer, have it answer you in your voice and accent, it allows you to write music by simply humming or whistling into the microphone, it allows you to put voice into programs you are writing - a brilliant innovation.

Last month I promised you a new competition. Well, here it is. Over the next three months starting with today's column, you must make a list of every product I mention and send the list into us with the recommended retail price against each product (if you have not got one of our price lists please send in for one now, or go to your nearest retailer to see the product and get the price). First prize is $250 worth of Pactronics products - your choice!

Advertisement

Adelaide has developed a program which will allow students to study the nutritional value of their own diets, or any they devise. The Division already has produced 500 disks with an accompanying booklet to sell to schools and interested individuals for approximately $60. Having experienced the program at CSIRO Science Education Centres, schools can buy it for use in the classroom in either Commodore 64 or Amiga format.

Young Australians invited to speak: and win!

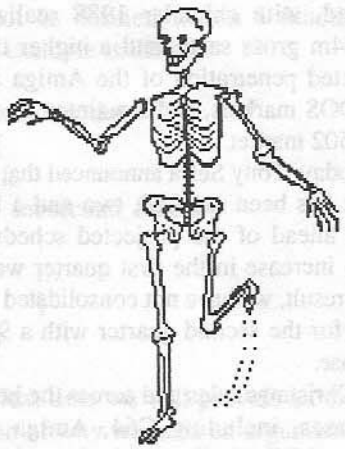
A major education sponsorship involving young Australians has been announced by Commodore Business Machines.

Together with *The Age* and *Sydney Morning Herald* newspapers, Commodore is inviting senior secondary school students from all Australian states and territories to become the "Young Australian Speaker of the Year."

The competition, run in conjunction with the worldwide "Plain English Speaking Award", brings together the best of Australia's student speakers to contest state, then national awards.

In addition to Commodore Business Machine's $25,000 cash sponsorship to assist in the organization and operation of the competition, the company will also be awarding Amiga 500 computers to each of the State Winners and to each of the State Winner's schools, along with special commemorative medals, also presented by Commodore.

The National Winner will earn a place in the Pacific International section of the contest. The Pacific International Winner will also receive a Commodore Amiga 500 computer, or Amiga Software to the same value. ■



C64 users...

1541 clones clobbered!

Commodore has finally put a stop to the free flow of 1541 clones using pirated ROMs. Legal action is in the pipeline against five companies alleged to be involved in importing and/or manufacturing drives containing the questionable chips.

Dealers have been warned, although two refused to stop selling the drives. Commodore have already succeeded in clamping down on similar units in the United States. A successful suit was won against several suppliers, including Blue Chip. Keep watching this space for future local developments.

Free Spirit releases Spectrum 128

It will be a Happy New Year in 1989 for 128 owners looking for software which will truly utilise the capabilities of the 128. Free Spirit Software has released *Spectrum 128*, a paint program for the Commodore 128D computer or the C128 with 64K Video RAM upgrade.

Spectrum 128 is a full featured paint program which uses 80 column display for 640 x 200 pixel resolution. The package displays all 16 standard colours and an additional 128 colours through colour dithering. *Spectrum 128* is menu operated and requires a 1351 or compatible mouse.

Among its other many features are airbrush, erase, mirror, multi-colour, block fill or erase, pixel editor, colour editor, built-in slide show, uses 128 fast mode, support for 1750 REU, support for 1541, 1571 and 1581 drives, support for most printers, create hexagons, diamonds, octagons, lines, boxes and circles, uses 8 x 2 colour cells, create 3D solids, adjustable font sizes, text mode includes reverse, underline, sideways, mirror, flip, complement and pattern modes.

Spectrum 128 is compatible with Basic 8 files, *Print Shop* graphics, *Sketchpad 128* graphics and *News Maker 128*. A review will appear in ACR soon, meanwhile try Free Spirit direct at:

Free Spirit Software, Inc.
P.O. Box 128/ 58 Noble Street
Kutztown, PA 19530
215-683-5609

RAINBIRD and FIREBIRD in co-operation with Questor present

Program of the Year competition

also sponsored by *Australian Commodore and Amiga Review*

Here at *Australian Commodore and Amiga Review* we get to taste the best and the worst of computer software. Now we are on the search for a hot fresh idea. Anybody can enter who can think up and put into writing an idea for any type of program that could work on a Commodore computer.

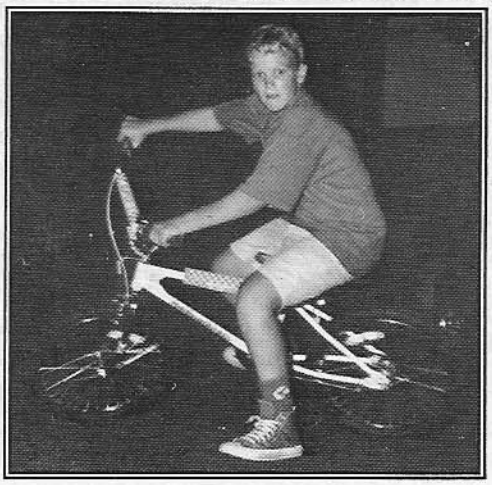
Apart from the prestige of being named as the Program of the Year initiator, a Grand Prize is also being offered. Rainbird/Firebird, a leading entertainment software company, in conjunction with Australian aggressive entertainment distributor Questor, are offering a fabulous BMX bike to the winner.

Ten runners-up will receive a selection of top new games titles of their choice from the Questor range.

To enter, submit your idea in whatever form you prefer, to the editors of the *Australian Commodore and Amiga Review* before June 1st. Your submission will be judged based on presentation, originality, imaginativeness and feasibility.

We look forward to checking out some of the sock-removing game concepts, utility programs or productivity software that you've got rattling around in your imagination.

Win a BMX bike!



CONDITIONS:

1. Attach your name, address, age and phone number to your entry.
2. Send a stamped addressed envelope if you want your entry returned.
3. The competition is open to any person of any age, with the exception of employees or relatives of employees of Questor, Rainbird/Firebird or Australian Commodore and Amiga Review.
4. The judges' decision is final, and no correspondence will be entered into.

Notepad

New products and news From the USA

by Peter Ward

One of the newest items available now in the USA is the Amiga 2500. As previously announced by Commodore, this machine boasts a 16Mhz 68020, running at 14. 3 Mhz, a M68881 Math Co-processor with a 68851 memory management unit, a 40 Meg Hard drive, with the 2090A autoboot controller, plus megs of 32 bit memory in addition to the standard one meg of 16 bit now supplied on the A2000. In short, the stuff dreams are made of. The RRP? a cool $US4699,00, though through discounting, the unit I saw was selling for a paltry $US3999,00.

New software releases include *Falcon* by Spectrum HoloByte, a F-16 flight simulator which makes *Interceptor* pale in comparison. The two disk simulation comes complete with a 130 page flight manual!! and behaves like a real aeroplane should a word of warning, my USA supplied NTSC copy will not work on my PAL Amiga-sigh. Other new games which are selling well are: *DRAGONS LAIR*, *STRIP POKER II*, *DUNGEON MASTER* and *OUTRUN*. Aegis have released *AUDIOMASTER II*, a stereo revision of the original with sampling rates of 44Khz for 68000 based Amigas, and even higher for 68020 machines at 56Khz.

Mr David Boyles of Micoillusions informs us that there is truth in the rumours of a sequel to *Faery Tale*, though he did not give away too much by saying that it "would be a new innovative game, breaking new ground much the same as *Faery Tale* did".

PHOTON PAINT II will be released on March 1st, and will include better control over luminosity, contour mapping, animation, pantograph and rub through modes as well as stencil feature. The will be a price increase of $US50 on the original version. Other soon to be released products from Microillusions are *JDX2*, a still very secret and highly innovative program which will work with their Cell Animator, and an *EDIT DECISION LIST PROCESSOR*, a package for the home video enthusiast to help with the editing of video scenes. *MUSIC-X* has an official release date of March 1st, though with Planetarium and Land of Legends there was no official word.

Electronic Arts will be releasing *DELUXE PAINT III* in March. New features will include: colourizing, animation, extra-halfbright support, overscan and 3D wrap-on brushes. Upgrades will cost $US50 to registered users.

CMI having had a few compatibility problems with their accelerator boards are upgrading to a type II board, which will be available about March 1989 as well.

Byte by Byte have released *SCULPT ANIMATE 4D*, (available since before Christmas) with significant improvements being: faster rendering, hot keys and an interactive object editor. RRP is not cheap at $US499 .95, though upgrades for existing users will make it significantly cheaper at $US195.00.

A-Talk III shipping, plus other upgrades

A-Talk III, the latest rendition of the popular communications and terminal emulation program for the Amiga computer, *A-Talk Plus*, is now shipping. *A-Talk III* has added Zmodem, Ymodem and Ymodem Batch, an expanded Script Language as well as an ARexx language interface making it one of the most flexible and complete communications packages on any computer.

Terminal emulations included with A-Talk III are: VT100, VT52, H19, ANSI, TTY and Tekronix 4010/4014. The Tektronix emulation features both interlaced and non-interlaced versions.

Other communications features include automatic dial and redial, 60 number phone directory, single screen for global setting of all parameters for host systems, selectable redial time and number of redials, and relaxed timeouts for public networks.

Graphics can be captured in both IFF format and Aegis *Draw* format for export to graphic programs. In conjunction with the terminal emulation mode, this allows down loading of graphics from mainframes for export to programs on the Amiga.

The expanded Script Language has over 50 commands with a Learn Mode for easy creation of Scripts. Sample Scripts for numerous on line systems are included in the manual, as well as detailed explanations for each command.

A-Talk III lists for $99 (US). Shipments have commenced through the normal Oxxi distribution channel. Oxxi is offering upgrades to registered owners of *A-Talk Plus*. Upgrades are available for $25 (US) plus $4 (US) for shipping.

MaxiComm registered owners can migrate to *A-Talk III* for $50 (US) and the same $4 (US) for shipping. Diga! and Online trade-ins are available for $60 (US) plus the same shipping charges when accompanied by the manual covers and the original program disks for these products. All orders can be placed by mail at Oxxi, PO Box 90309, Long Beach, CA 90809 or call Oxxi for further details at (213) 427 1227. (We recommend you organise upgrades direct with the US for speedy results.)

The Disc Company - One Million Dollar Software Acquisition Campaign

Las Vegas, Nevada - The Disc Company unveiled its plans to invest over $1,000,000.00 during 1989 to acquire innovative software products for the Commodore Amiga personal computer.

"The Disc Company is aggressively seeking new products that offer distinct benefits to our customers and that will differentiate our company from the competition, "according to A. Robert Kotick, TDC President. "We are offering independent developers an attractive compensation package consisting of generous advances and significant royalties, and because of our financial resources and marketing talent we expect to attract a number of noteworthy submissions," Kotick continues.

With its corporate offices in Ann Arbor, Michigan and European headquarters in Paris, France, TDC distributes its products through an international network of distributors in North America, Europe, the Middle East, Australia and Asia.

TDC will launch an international advertising campaign in all the major Amiga periodicals which details the ways in which independent software artists can benefit from TDC's worldwide publishing network. In addition, TDC will offer existing small software publishers an opportunity to participate in its Affiliated Label program - through which small publishers can gain access to international markets.

In addition to seeking new Amiga products, TDC will enter into agreements with software publishers for other computer platforms who may wish to convert their programs to take advantage of the growing Amiga market.

While TDC will evaluate all submissions, programs of particular interest include audio products, video and graphics programs and entertainment products. Programmers whose software shows special promise will receive in-depth technical assistance and the financial support necessary to bring the product to market.

"TDC has established an extensive international distribution network which has enabled our company to generate significant revenues. During the next year, we plan to invest $1,000,000.00 in the expansion of our product line. Those developers who participate with us stand to benefit handsomely" concluded Kotick.

Perhaps local developers looking for market penetration from an enthusiastic company should seriously consider TDC.

Aegis interactive music disks

Aegis Development, Inc. has announced the release of *Sonix SoundTrax Volumes One & Two*, a series of high-quality interactive songs for Aegis *Sonix*. *SoundTrax* will allow even the amateur musician to participate flawlessly.

Written and performed by Jon Rami, these disks offer the ultimate sound clarity by using clean sampled instruments. Each song has keys carefully set on the Amiga keyboard making an off-key not almost impossible.

To his credit, Jon has worked with Stevie Wonder, Ray Parker Jr., and the Drifters among others. Work in the past for Roland, VOX, and Marshall Amps has qualified Jon as a professional in the music field.

"I'm very pleased to say that nothing like this is available for any other music programs," says Jon. "Being able to play along with these songs will bring the musician out of everybody."

The *SoundTrax Volumes*, each containing two full disks of songs, will be available in January at a suggested retail price of $19.95 (US) each. Local distributors should have this product soon.

Aegis goes online

Santa Monica, CA - Aegis Development, Inc. is proud to announce the reinstatement of the Aegis BBS. The BBS is designed so that anyone with a modem can call for the latest information on Aegis products and services.

The Aegis BBS is online 24 hours every day and includes support for technical questions, warranty and update information, product announcements, beta test information, product demos, direct access to programmers, upcoming contests, and much, much more!

Unlike most other bulletin board systems, the Aegis BBS is a free service to customers - you pay only for the phone call. The Aegis BBS can be reached by calling (213) 399-7316 300/1200/2400 baud, 8 Data Bits, No Parity, and 1 Stop Bit. The Aegis BBS offers full colour support so ANSI terminal packages are recommended.

If you can spare the ISD phone bill, at 2400 baud it would be a worthwhile call.■

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Entertainment Roundup

by Andrew Farrell

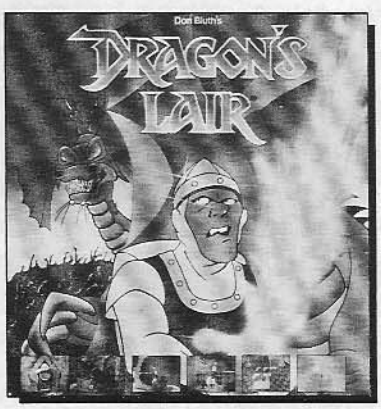
ReadySoft's Dragon's Lair arrives at Last

It's here! Our office has come to a grinding halt. April may never be printed, and even May could be affected. The six-disk game to end all games. A new blast-your-socks-off product for Amiga fans, and adventure freaks.

Dragon's Lair, the awesome arcade game that caused such a great sensation, has finally arrived for the Amiga. Our review copy arrived from Questor a mere matter of moments before going to press - so next month there will be a full pictorial. But for the moment, let us heartily recommend you take a look at the astounding quality of this game.

However, only play it from distance. It will enthrall you for hours otherwise, roping you to the joystick for more time than you may have to spare. Be warned, this game will get your attention.

Also new from Questor is *Bomb Busters*, the game that provides hours of fun as you fight your way through 100 levels of play to deactivate the bombs that are guarded by powerful robots throughout the famous buildings of the world, the world you must save from their destruction.



If you like action, you'll love *Ganymed*. Playing as a Star Warrior, you must prepare yourself and the rest of the Star Warriors for victory and freedom of your planet of the Deathbots and the evil forces that guide them.

Two other games on their way to Australia include *Rock Challenge* and *Cosmic Bouncer* the maze game.

Fish

The tide is turning in the teeming metropolis of Fishworld. The oceans and seas are boiling off into space. The Seven Deadly Fins - an inter-dimensional group of anarchists are on the loose - they will stop at nothing to destroy all forms of life as we know it. Motivated by profit, strategic advantage and, most of all, fun.

At Mission HQ, a team of crack interdimensional espionage operatives attempt to overcome this hideous force. You are to be part of this operation acting as a trainee inter-dimensional espionage operative. Operatives will be trained in a technique known as warping - a painful but effective method in trying to beat the Seven Fins at their own game.

From rain-soaked forests and London recording studios to the farthest reaches of time and space, *Fish* will bemuse, dazzle and thrill you before confusing, razzling and killing you.

Fish is now available on the Atari ST, Amiga and IBM compatible computers. Full review is on the way next month.

Live'N'Let Die from Elite

Another Questor game. Ian Fleming's famous 007 movie has now been placed on computer. Questor's Tim Allison, the man whose sheepish smile has erked many a game into submission, asked Elite why they choose this movie to simulate.

Their answer was to watch the movie and pick out the best action scene, and then he would know.

As most of you probably know the movie is famous for its incredible boat chases, and so that is what the game is all about.

The game is a mix of motorboat simulation and arcade sequences, as James Bond battles against the agents of the deadly Spectre. C64 and Amiga releases are on the way.

Telecomsoft Wins Top Overseas Awards

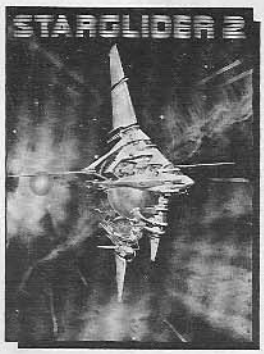
Telecomsoft has scooped several of the 1988 *Generation 4* Gold Awards in France and the *Soft Today's* Reader's Awards in Denmark.

Generation 4 - one of France's leading computer games magazines - has awarded the company five first places. Other Telecomsoft titles gained many second, third and runner-up places.

Rainbird Software was voted the Best Foreign Company of 1988 and Firebird Software followed closely in third place. Rainbirds's *Starglider II* took the second price in the Game Of The Year 1988 section.

Also, Telecomsoft walked away with the first three places of the Best Strategy Games awards. *Carrier Command* came in first place, *Universal Military Simulator* second and *Sentinel* third. *Tracker* was a runner-up.

Fish took the top award as the Best Foreign Adventure Game with *Corruption* in second place. The Best Simulation award went to *Elite* (which is now available) in first place and *Carrier Com-*



mand in second.

Finally, the first prize for the Best 3D Game award was given to *Starglider II* with Virus third. *Carrier Command* was a runner-up.

In Denmark, the readers of *Soft Today* magazine voted *Bubble Bobble* (Eric Holroyd's favourite) the Best Game Overall in 1988 with *Starglider II* coming third. *Starglider II* (hard to play, even harder to beat) also gained second places in the Best Graphics and Best Action Game sections. And to complete the impressive array of awards, the *Soft Today* readers elected Telecomsoft the Best Software House of 1988.

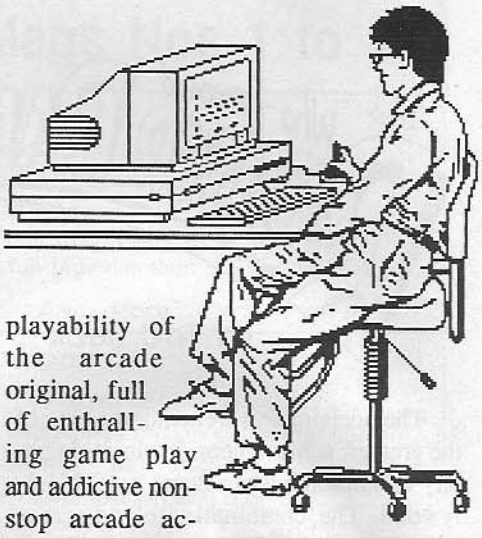
Flying Shark

Watch out for *Flying Shark*, Firebird's latest coin-op conversion and already a massive hit in the arcades.

Licensed from Taito, *Flying Shark* is a fast and furious vertical scrolling shoot-em-up. As a lone fighter pilot you must meet the challenge of a lifetime in a ferocious battle against enemy forces armed with an endless supply of bullets and too few devastating smart bombs.

The game play takes place through five lethal levels, including attacks by squadrons of planes, frenzied fire from tanks and gun emplacements and deadly attacks from battle shops and patrol boats out on the high seas.

Just like the highly successful *Bubble Bobble* coin-op conversion. Flying Shark contains all the essential features and playability of the arcade original, full of enthralling game play and addictive non-stop arcade action. On Amiga some time next month.



Well, that's it for now. We've all got to get back to *Dragon's Lair*. See you next month! Meanwhile, check out the game reviews. ■

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AMIGA

Who framed ROGER RABBIT

by Ted Beck

The acclaim was tremendous. One of the greatest achievements in cinematography animation ever to come out of Hollywood. The combination of on-screen graphics and real, flesh-and-blood human actors. Heralded as a summer sensation with certain success, *Who Framed Roger Rabbit* was a brand new, upgraded step in innovative achievements.

Almost without saying, Steven Spielberg was naturally involved along with the talented masters at Walt Disney productions. What they have produced has been a delight to audiences of all ages. So, again, we, the home viewers, as it were, eagerly anticipate the release of a possible video game accompaniment.

It's happened! Fully serviced by the Amiga potential to winningly recreate the dynamic effects of the movie!

Roger Rabbit: the game

What is that daffy, whacko hare-breath creature up to on the smaller screen? Do we get to enjoy the presence of his voluptuous wife? Is there still the fearful dread of his dangerous enemies? Are the settings as shadowy and twisted as the film?

Let's see.

The game opens up in the post-war year of 1947. Here we find ourselves on the streets of Hollywood and Toontown (home of all the cartoon heroes of the day). The streets are vibrant, bustling, busy in the relief-filled aura that flows after such a terrible war. People want to laugh again, thrive upon the comedy and fabulous fun of the cartoon experience.

Roger Rabbit is the Toontown superstar. His naturally lobotomized brain is just the personality needed to split the sides of the movie audiences, and such a comic talent is well-received

across the land. But success hasn't gone to Roger's head, or even further to the top of his shaggy, white ears, Roger's just a great guy, pleasant and unobtrusive. He's the kind of rabbit you would be happy to hang out with and call your friend. Probably even a lot nicer than the bunnies you yourselves associate with even today

The difference, though, between a living, coloured sketch on paper is that Roger is real. A three-dimensional breathing character that works and plays along with the rest of the inhabitants of Toontown's suburbia.

The employment generating the income for all these characters are the Maroon Cartoon studios. This is where all the Toon characters work and make themselves into the big stars of the animationscreen. They love living here and life in 1947 is pretty good.

But all is not well in the land of makebelieve. The magic walls of this animated kingdom are beginning to crumble as conspiracy and wicked deeds seep in to undermine the well-spring of goodness and humour that their beloved audience thrive upon.

Roger Rabbit, our lovable, furry buddy, is framed for the murder of Marvin, the Gag King. Now, Marvin's estate is in doubt, as his will is also suspiciously absent and the Toon characters look set to lose everything if they cannot prove that Marvin, the owner of Maroon Cartoon Studios, left everything to them!

Roger, despite his hare-brained, free-wheeling, madcap antics is looking at a severe case of injustice. He's the only one with the capabilities to disprove the wretched case against him. Now, Roger is on the lam with a sinister, relentless foe hot on his bunny tail - Judge Doom! Judge Doom is a committed Toon-hater. He will do anything to see the Toon characters miss out on their golden inheritance. Not only that, but Judge Doom has his own dastardly method of administering "justice" - in the form of a nasty concoction known lethally as "The Dip." It has the power to dissolve Toons on contact.

So Roger has to move fast to stay out of evil Judge Doom's clutches. As the details in the accompanying booklet conclude, "it is not that he minds an occasional bath, it is just that he would

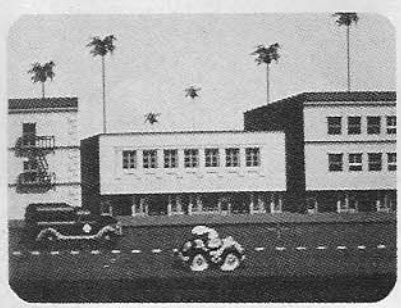
rather not be all washed up so early in his career!".

Our job is to help old, funny bunny Roger to move quickly and stay out of the clutches of bad Judge Doom. They are both off now in a frantic race to find Marvin's will which will prove that Roger was one of the recipients of the Maroon Cartoon Studios and therefore did not have the subsequent "need" to ever murder Marvin. But Doom has an even more wicked plan! Chemical warfare! Armed with barrels of The Dip, Judge Doom has set out to wipe all the Toon characters off the face of the planet!

Part One: Benny the Cab

Benny is a free-wheeling, streetwise (the puns get really heavy here) and usually "reckless" Brooklyn cab with the gift of the gab. Able to hop buildings and rise above all the traffic and with his amazing accordion suspension, Benny the cab is a real asset for Roger Rabbit to have around town.

You are at the controls as Roger and Benny race Judge Doom through the crazy streets of Hollywood. But you can beat them. You must, though, watch out for the weasels in their Toon Patrol wagons and puddles of the deadly Dip. Also, collisions with red street cars are almost always inevitable. Here, though, are very helpful implements to be obtained as you hurtle forward through the traffic: Rubber Gloves, Wheels, and Diamonds. Rubber Gloves, as with the other two icons are obtained by jumping Benny across them as they hang on the brick walls of buildings along the streets.



They temporarily protect Benny from the lethal puddles of Dip. The Wheels give an extra burst of speed, which is very essential when racing Judge Doom's big, black car to the end of part one. Diamonds are a trade-in bonus for subtracting a barrel of The Dip from your tally.

The action happens on a left to right scrolling screen - which is rather jittery - but still captures the imagination.

Part Two: The Ink and Paint Club

After the speedy and frenetic dash through the streets of Hollywood, your immediate destination is to get Roger Rabbit and Benny the Cab to the local Cartoon industry hang-out called The Ink and Paint Club. This is the only place in the world where humans can enjoy live performances by Toon stars like Roger's gorgeous wife, Jessica. Jessica is the superbod redhead above us in the illustration. Need we say more?!

The reason for stopping off here at the Ink and Paint Club, despite the intensity and immediacy of the search, is due to this establishment's holding of a very important piece of puzzled evidence to the story and crime. Marvin the Gag King's will is somewhere in the piles of nightclub receipts, napkins and checks. And what else can you expect from the Gag King himself but the fact that his will has been written with disappearing ink. Now Roger, through your skillful ability, must grab all the papers in the club and locate the will before the music stops!

In this scene, you will enjoy the brilliant, totally entertaining chase around the table between Roger Rabbit and the penguin waiters. They whirl around replacing pieces of paper even faster than Roger can collect them! But somewhere in this pile of papery debris is Marvin's will and the solution to the now famous question: Who Framed Roger Rabbit?

But be careful of the gorilla bouncer who can chuck you out the door and into the alley in a heartbeat, and the glasses of drink the penguin waiters deposit to the tabletops among the papers. If Rodger gets even a sip of one, it will go straight to his head and you will lose control of this particular sequence, resulting in yet another barrel of the dreaded Dip being added to your score card.

Part Three: The Gag Factory

Touchdown! This is your final destination. The place where it all happens. Here, the fabulous Toon characters come to life, fueling their joking repertoires from the manufacturing gag pools. But watch out! Here is especially where the deadly weasels of the Toon patrol are waiting to jump you and Roger. But don't give up - just grab the gags you find here and use them to temporarily disable the weasel you meet in the factory. Since weasels are Toons, your only hope of permanently destroying them is by making them laugh themselves to death. Do anything funny, the more gags the more lethal and you have a good shot at getting Roger out of there in a happy, livable state.

However, if you survive the weasels, it's still not over. Judge Doom is still waiting for you, ready for the cliched moment of truth. Lose, and it's "that's all folks" for you, Roger and Toontown. Defeat Judge Doom, however, and you save the precious Toontown from total devastation and retain Hollywood's animated niche of creativity.

Opening screen is a display of a rusty red brick wall with a spray painted sign declaring that you are right now sitting in a Loading Zone. You begin to realize

Clicked on Games

the flavour of the game from the music that is played, upbeat, jazzy tunes from the forties, setting you into the smokey, cornered atmospheres of the day.

The graphics are excellent. What you see in the movie is virtually what you get on your Amiga screen. Playability is easy and enjoyable. Once you get the hang of the joint fire button and lever control, you'll have Benny the Cab rocketing through the air, over buildings and cars and avoiding the dreaded Dip in no time.

The scene inside the club is fabulous! Almost a kind of modern-day musical chairs as the band plays and you race around with the hilarious penguin waiters.

One disturbing flaw in the game, however, is the fact that the first part of the game gets the most wear. I think your disk may start to get a little lopsided by the fact that if you do not manage to successfully overcome the road chase you will not get on to the next phase. The people around me who have played the game all agree that it would be a lot more preferable to store up a margin of points through each sequence and get a better shot at attempting the final parts more often. Once you tally up five barrels of Dip the game ends and you must reload to get back to square one. It becomes infuriating having to wait, believe me!

But all in all, Roger Rabbit is definitely one of the most worthwhile Amiga games around for the 1989 season. It is great entertainment, it's fascinating and a very welcome change from the normal genre of cliched, shoot-em-up arcade features.

Check it out! ■

Distributed by OziSoft (02) 211
1266 RRP Amiga $44.95
C64 disk $35.95

Captain Blood

by Andrew Farrell

Let me clarify - Captain Blood, as in Mr Blood, not Captain of gore and disgust. You're a man with a mission. Save yourself, before the galactic jitters shake your fading body into obscurity.

This is the first game ever where I sat down and read the plot. Without the book, containing the plot, the game is very difficult to get into.

During experiments with a new program you were writing, a disaster occurred. You were replicated. Five times in fact. Throughout the galaxy your clones walk, and they're killing you, sapping your life fluids.

The job ahead is to seek them, and destroy this electrobiological mishap. Equipped with a ship filled with baby pods to take you there, or at least to see what's there from the pods' point of view, you head out on your quest.

Along the way you will meet many types of life forms, from barely intelligent to walking encyclopedias. From these creatures, using a complex interpreter, you are able to extract information, and discover the various issues facing inhabitants of the world you explore.

You begin in the organic-like cockpit of your craft. From here you may send the pods on a mission to explore, land on, or destroy a planet.

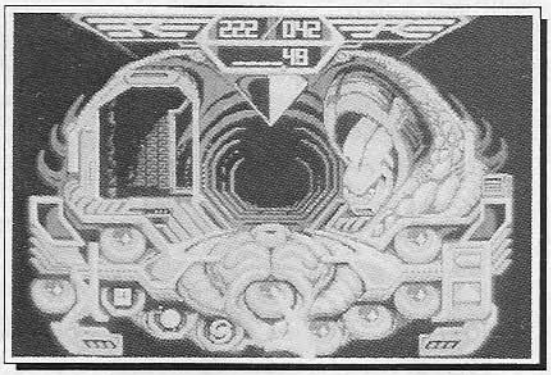
A view of your surroundings appears through the view-finder. A planet, a scan of the surface to reveal hidden defenses, or your journey along its surface. The latter being the most amazing piece of graphic work seen for some time here at *ACR*.

The scenery is rugged mountain ranges, represented by Fractal graphics pioneered by Lucasfilm. As you fly into the canyon where the creature of each planet lives, the sides rise above you. A super realistic flight that must be experienced to be appreciated.

Captain Blood's next greatest programming triumph is the level of intelligence at which a conversation can be held with a life form. The personality, needs and feelings are all portrayed using icons. Before long I found myself learning this simplified point and click language of pictures, and game progress quickly improved.

You could spend weeks talking to some of these characters, learning the international iconic language, and just getting to know your way around the galaxy. A SAVE option is available.

In all, an adventure of tremendous proportions, that is a sure winner in the graphics, sound and plot department. I suggest you check it out next time you hyperspace into a dealer near you. ■



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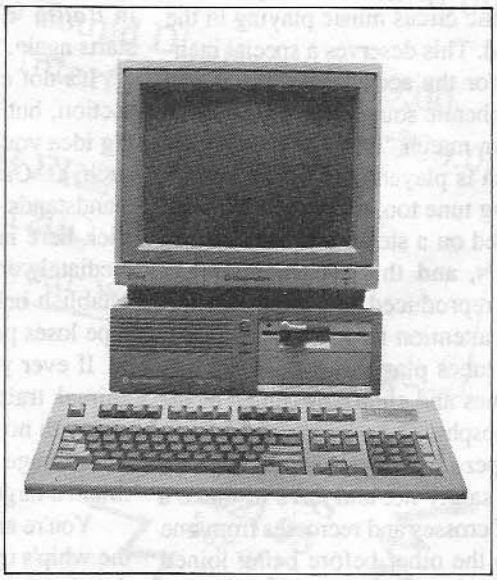

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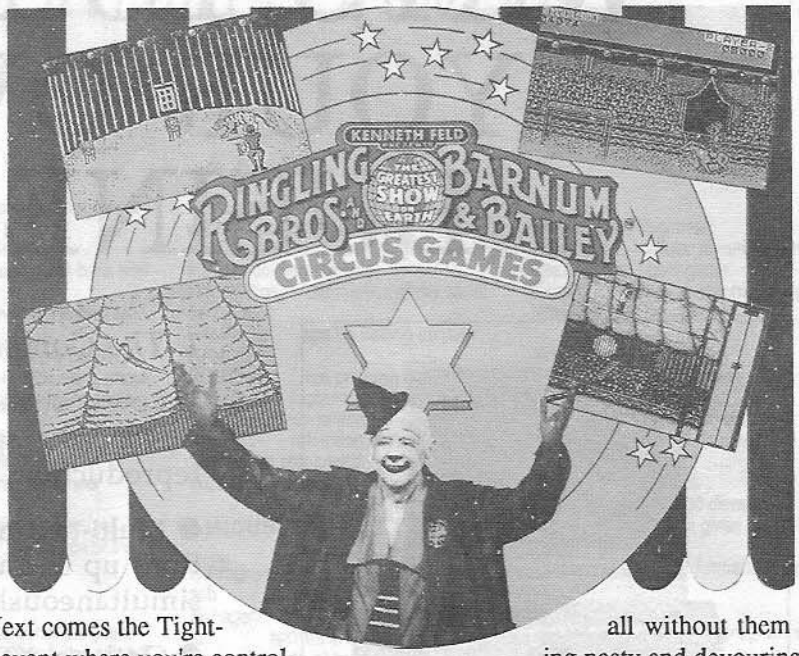
KEEP UP WITH commodore

Circus Games

by Eric Holroyd



Step right up! See the greatest show on Earth! So says the blurb on the packaging of this new game made under licence from Barnum & Bailey and Ringling Brothers, surely the most famous names in the circus world.

It's a game for one to four players and has four sections: Tightrope Walking, Trick Horse Riding, Trapeze and Tiger Training. It's all joystick controlled with the stick performing different functions in each section. For instance, in the Trick Horse Riding, moving it left and right keeps your balance on the horse and there's a balance meter to help here too. Then you can do: Handstands and Somersaults, Stand and Sit, Left and Right Spins, and Jump to left or right. Points are scored for each trick successfully performed and you lose points for overbalancing or falling off the horse.

The title screen was very good and had authentic circus music playing in the background. This deserves a special mention both for the accuracy of the music and the authentic sound. The music is the well-known march "Entry of the Gladiators" which is played here in full and it's quite a long tune too. Music always used to be played on a steam organ at the old time circus, and this programmer has faithfully reproduced the sound, so top marks for attention to detail there. Various other tunes play throughout the different scenes and contribute much to the circus atmosphere.

In Trapeze you're performing high up without a safety net and have to make a number of crosses and recrosses from one trapeze to the other before being joined by another "flyer" to perform joint tricks. Again, I liked the joystick controls which were very effective and simple to learn and points are scored for tricks performed and properly completed.

Next comes the Tightrope event where you're controlling a shapely young woman. You have two views of the action, one the normal view and the other a plan view, so that you can see exactly what she's doing with her balance pole. If she falls off she climbs back up the ladder with a most attractive wiggle, reminiscent of the Queen in *Battle Chess* on the Amiga, then starts again.

It's not easy to master the Tightrope section, but once you've got the balancing idea you can rack up points for tricks such as Cartwheels, Somersaults and Handstands done on the High Wire. The trick here is to press the firebutton immediately on landing back on the wire to establish balance. Falling off the Tightrope loses points of course.

If ever you've fancied yourself as an animal trainer now's your big chance, and with no danger to life or limb either! Three huge Bengal tigers are parading round a large cage with you inside it.

You're armed with a whip and a chair, the whip's operated by the firebutton and the chair by the space bar. The idea is to use the whip gently (!!) to get the tigers to go where you want them, then get them to jump onto a podium, through a flaming hoop, then go through a tube, all without them turning nasty and devouring you. Each tiger has a "threat bar" at the bottom of the screen, if it's white you're OK, if it goes red you'd better look out and have your chair ready to ward off an attack.

Incidentally I've always wondered why it is that jungle animals are deadly afraid of chairs? Is it some subconscious throwback to the days of the great white hunters I wonder? Anyhow, if you "threaten" one of the Bengals by hitting him on the head (rather than anywhere on the body) with the whip he'll attack without warning and you've lost another life. Failure to complete the course within the allotted two minutes (and there's an on screen timer) incurs a points penalty just to keep you on your toes and it has the effect of keeping the interest up too.

This is one of the best C-64 games I've seen in recent months. It's a new idea, few and far between in computer games nowadays, with a lot to offer and is definitely worth a look. ■

Review copy courtesy of
Questor (02) 662 7944 RRP
Amiga $59.95 C64 disk $39.95
cass $29.95

AMIGA

BOMB JACK

by Ted Beck

Finally having *Bomb Jack* on the Amiga is as revolutionary as getting *Big Bird* out of retirement to host the Countdown awards. Sensational!

Our little blue, bug-eyed buddy is here again, off the streets and pulsating new techno life into our on screen visions. We are happy now to get the one in a million chance to review this new release and see how it measures up to the Commodore version of eons ago.

Bomb Jack, the little pyrotechnic maniac of the Far East, comes in to you live with all his usual smug antics. From the opening screen set against the dusty, mustard sands of Egypt, crazy *Bomb Jack* is out to collect his cherry bombs faster than an Oklahoma farm boy rushing to get his chores done before a big Friday night date with Miss Cheegoocheegoo Swamp '89.

As always, this number one selling game from the land that brought you Henry the Eighth and acid breath, is compelling playing material. From the opening shot out there in the desert interiors of Egypt you, the sweaty palmed player on the kitchen chair, have that frenetic chance to swirl and whirl your bug eyed friend around the screen, collecting the fused and defused bombs and tally up a staggering amount of points.

This factor is probably one of the game's more endearing features. The ability to clock up an impressive amount of points and with not too much difficulty either. All it takes is a learning process of agility and dexterity. I found that if you have one of those suction cupped joysticks in front of you and you get to a hairy sequence in the game where there are a dozen different kinds of assorted nasties floating and gliding every which way on screen - then sometimes you tend to rip the joystick right off the desk and end up dying anyway from losing control.

The game, moving on into Greece and the Colossus of Rhodes and/or Parthenon is a just for the hell of it location shot for Bomb Jack to continue his odyssey of grenade polarization. But such locations, I have found, are quite pleasing as a chance to devoid oneself from the dark, velvet voids of some outer space back lot north of Jupiter.

Then, as progression increases with the kind of skill you find yourself amply provided with as the game continues, you move finally to a large castle estate probably somewhere in the Black Forest of Germany.

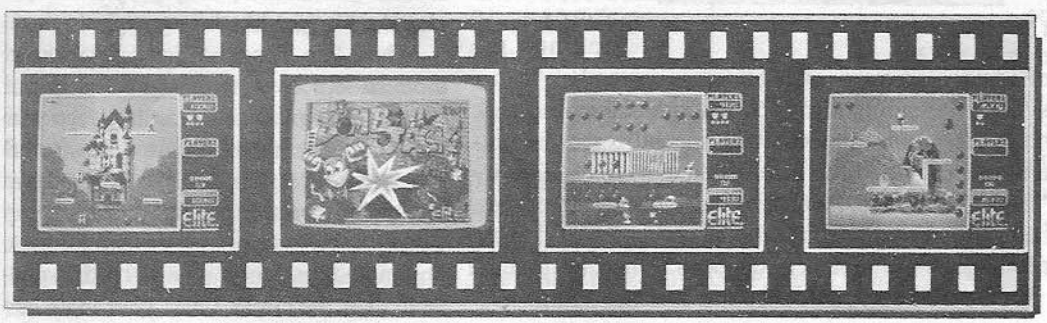
Look out for and relish the moments when you can swallow the not so bitter pills that enable your friend and mine, Bomb Jack to dart about and gobble up the nasties while they are temporarily indisposed in a period of suspended animation.

A couple of criticisms may have to deal with the actual stealth of Bomb Jack. It is true that you have a very good ability to manoeuvre him upwards with reasonable manipulative movement, but I, and others, feel that he should have been endowed with a little more bounce instead of floating. Perhaps even if it meant that the nasties themselves could be speeded up as well, it would lend itself to a totally riveting game.

But we are grateful for the chance to Amigaize this beloved game and enjoy the excellent graphics that have resulted from its adaptation to this machine.

The music is pretty much a non entity. Some featureless tune from the cobwebbed cracks and corner of a travelling carnival. But if you came here for music, turn the radio on. If you came here for scrolling screens and razzamatazz, flashing strobe aliens then reload to some other title. But if you came for good time fun and pleasure then look no further than the new Amiga release of *Bomb Jack*.

If you do want to stock your games library with a beaut new game, then mate, you will be happy about the satisfying diversion a nice little game like this one can give you, and your nice little kids. ■



Review copy
courtesy of Questor
(02) 662 7944 RRP
Amiga $44.95

CAVEMAN UGH-LYMPICS

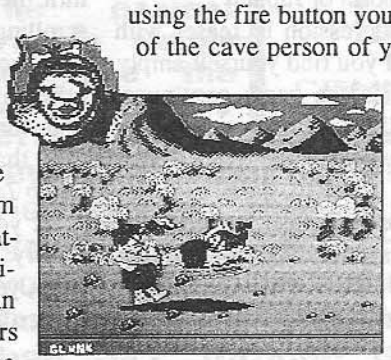
by Ted Beck

Is it true? Yes. From out of the latest cave sketch discoveries today's archaeologists have now uncovered tangible evidence of proof that there were real and organized exhibitions of sports in controlled matches.

How good, how enthralling were these eons old quests for glory? Would they have satisfied the blood lust tastes of modern man? In fact, is it even possible that we could learn from such barbaric contests?

Long before Athens and the more conservative of sporting events in the ancient days of our era, long before steroids and caffeine pills, long before ten camera telecasts and peanut sellers, the dudes from the cave drawings were actually out there contesting each other with the most daring and impossibly enduring methods of comparison ever envisaged by this planet's inhabitants.

Let us take a closer look at the games and find out about the people who put the "ugh" in ugh-lympics. We will look at six events: Mate Toss, Clubbing, Dino Vault, Dinosaur Race, Firemaking and Sabertooth Tiger Racing.



First of all, included in the game package is an excerpt from a local cave person newspaper dated 35,000 B.C. Perusing the articles carefully, we find that human interest stories and current affairs are pretty well similar with the broadcasts we would find today.

One headline reads: "Threat of Terrorist Gorillas at this Year's Games

Possible motives are "simple demands for bananas to the release of other gorillas being held at local zoos" and "the gorilla leader's love of one of the athletes." The element of tension and danger continues into the game.

An obituaries column tells of the timely demise of one Blog Blog, the oldest known caveman in existence who died at the incredible age of 38. In an interview just before his death, when asked how he managed to live so long, Blog replied: "Not die."

There are personal columns. help wanted columns and the like, providing a fascinating insight to the world of yestereon. It also lends itself to creating a vested interest in the game you just shelled out big bucks for.

Then it comes time to choose your athlete. I played against the computer the first couple of times. The computer, even though it may win, is only there as a personal pacer and once you have at least completed an event, you will be able to be registered in the score tally as a winner and possibly even graduate to the "Cave of Fame."

To pick an athlete, the barbaric overtones of the day are present here for you, using the fire button you bash the picture of the cave person of your choice. You will then receive the Neanderthal's biography and his or her strengths in various events.

When it comes to picking the cave person athletes, remember before going into each individual event to pick an opponent that specializes or is outstanding in a particular field. For instance, when it comes to the Mate Toss, chose Thag who has a history of domestic violence, or grudla, the big momma that reigns supreme over her wimpy husband.

There are even sponsors here that you select to financially back the athletes. Dignified and respected corporations like Bashwell Clubs and NiceStink Perfumes. This, though, has no bearing on the performance of your athlete. I think they just threw this option in as kind of electronic sausage filler.

My advice is to practice every event first. Particularly if you are playing the game alone. If you start into an event and you are playing against the computer you usually only get one or two rounds and then that event is over and you automatically load to the next phase of the game. If you find yourself at an event you particularly enjoy, then close out to the practice session again and this will enable you to play the event for as long as you like. And don't worry, you will have many favourites.

Mate Toss

One of the more intimate of sporting achievements. The ability here to grab your matrimonial partner by the hair and toss him or her against a wall or a rock ledge. The history recorded in the booklet tells about how this particular event has brought about many a courtship between a man and a woman meeting up and having a good whomp at each other. Women have no problems excelling in the sport, as one enthusiastic lady proponent declared, "Me just like him go splat!"

The Mate Toss, not unlike the more modern but less streamlined shot-put event, takes place in a circle. Here you must hold the joystick button down and move the lever in a circular, counter clockwise direction. When you are at top swiveling speed you release the joystick button and toss your mate as hard as possible over the circle. Once your mate has

landed, the distance will be pronounced on screen and you will rank in the tally accordingly.

Sabre Race

As the old saying says on variously placed bathroom walls, "The race goes not to the swiftest, but those that can avoid being eaten." Here we have a race with the biggest twist this side of the corkscrew rollercoaster.

You and your opponent are set up on the field ready to begin a long distance dash over a length of field. It is one this to win the race against a fellow cave dwelling performer. But imagine now, the fact that a vicious sabre toothed tiger is loosed onto the field behind you! You can run, but you better run fast! That saber tooth tiger is one hungry feline and if you do not get the joystick motions down pat you soon become a side order on a fast food menu.

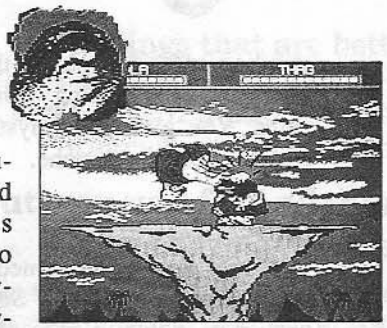
You move the joystick back and forth rapidly from left to right to increase your speed. But watch out, even though you may at times be in front, the guy behind you can pull your loin cloth and drag you backwards, even whirling you around and tossing you to the sabre tooth tiger! This is the Ugh-lympics, remember? And sometimes things can get pretty ugh-ly.

Fire Making

Now this is brilliant and definitely one of my very favourites. It is one of the funniest sequences in a game that I have ever seen on screen. It is a wonderful piece of work.

Here, as the game's creators call it "an evolutionary milestone" in the prehistoric development of man, was the first great step in civilization. To create fire, for heat and protection. Now, such rudimentary exercises have been captured onto disk and included in the game.

Your opponent is sitting there staring at you as he sits with the other competitor outside the entrance to a big, dark cave. In front of you is a small pile of twigs and bark. You and your opponent



are equipped with the only instrument allowed in this course, two sticks. Moving the joystick rapidly, (and in this game, everything depends on rapid movements of the joystick lever) you start your caveman rubbing his sticks together along with the competitor. Below the screen is a green bar that fills as you quicken and prolong the pace of the rubbing motion. It eventually changes to red and sparks start to form. Once a few of the sparks land on your tinder, your next job is to puff upon your pile by repeatedly and the aforementioned rapidly, pulling your joystick back. When you see smoke, push the lever upwards which gives you a deep breath, then drag it back towards you and this will exhale the needed breath on the tinder pile.

Remember again, the brutality that existed in these days. If you find that your opponent is getting too far ahead of you toward igniting the tinder pile you can deftly impair his progress by whacking his skull with one of your sticks. Of course, the other guy also has that ability, and I found that, although quite amusing, the time it takes to turn and thwack your opponent may be all that he needs to furiously finish off his frictioned movements, take that one deep breath and ignite his fire to win the game!

The sound effects for this sequence are very good, especially the simulation of the inhaling and exhaling processes. The more you push or pull back on the lever the longer or shorter the gasp of air. It is cleverly done you will enjoy it.

Clubbing

The goal of this event is to force the other player off the clubbing platform or beat him senseless. There are two parts to this event: the Intimidation Phase and the Clubbing Phase.

During the Intimidation Phase you have the responsibility to move that levering implement in the box in front of

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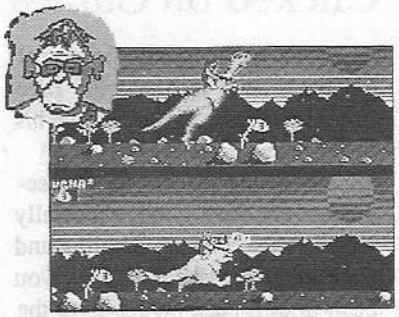

you very furiously in all kinds of random directions. This makes your caveman flail around wildly. If you can intimidate your opponent you will have a decisive edge when the clubbing begins.

I know this sounds quite violent but, remember, to a cave person it is more like social interaction. So, do not feel too incriminated when you give the guy next to you a mighty thwallock with your drum stick, this is allowed in the rules of the International Ugh-lympic Committee.

Your job is to bash, and we do mean bash the lima beans out of the kid till you drain him of all his energy or knock him off his platform. Strength is displayed on the bar graphs above each athlete. Keep a careful eye on these to monitor your strength. The beatings can be deceiving. I found that sometimes it would look like I was giving my cavie counterpart a terrific wallop on his cranium but at the same time he was countering me with a series of swift, well placed blows to my knees and ankles. Stars appear and you fall on your butt from exhaustion.

What is really cool are the various underhanded tactics you may employ in distracting your opponent, For instance, you can easily fake the other guy out by pressing the fire button continuously which makes your guy suddenly point to some place over and behind the oppose's head. He will look around stupidly and you get a great opportunity to crack him a beauty on the old skull bone.

The field in this sequence is a big, grey slab of rock set in the middle of the screen where you have both contestants standing off side one another coming grunting and grumbling with brandished clubs. You give your joystick lever a good workout on this one.

Dino Race

Could it have happened? Dinosaur races across the Mohabi? Sure, why the heck not. Actually, this phase of the game has some of the best colour graphics and lay-out in the package. You are there, astride some gangly looking beast with just a halter around its protruding neck and the object is to ride that sucker like the wind.

Actually, this part of the game takes a great deal of practice to perfect the sometimes quite temperamental decisions of the controls. It is a treacherous course to the finish line, marked by a cattle skull. There are methods of spurring your reptilian stead onwards, by kicking him with your heels continuously to propel him in the forward direction, or more effectively, whipping that big old club of yours out from your holster and bopping big Dino a good one on his hairline. This is known in the Ugh-lympics as a turbo tap. And if it works, your dinosaur will take off like a racehorse and clear all obstacles without your guidance. Once he slows down you will have to resume the spurring. Be careful of this, sometimes it happens before you know it and the other guy is a couple of lengths ahead.

Jumping is a tricky part. Get your coordination right, here, so that you can jump the many hazards that are quite slowing if your concentration and stealth are at a low ebb.

The scrolling in this feature runs from left to right and the guys at Electronic Arts have excelled themselves once again with the visuals. The landscape is great with cacti, boulders, trees and assorted prehistoric desert spreads. If you are ever going to ride a dinosaur even just once in your lifetime - you might as well do it in the proper atmosphere of the Cave Ugh-lympics.

Dino Vault

First you raced them - now you have to jump the mutated lizards!

Here you are in a splendid location beside the seaside. Everybody has gathered for this final compelling event. The big monster awaits! You stand there, waiting for the height of the dinosaur's neck to be determined, then back up to prepare yourself for the running leap to the gorge and the dinosaur on the other side. Timing, pace and eye contact is a must! Here, special sound effects of feet running are there to tempo your dash. You must rhythmically move your joystick lever backwards and forwards to the sound of the feet to accurately gauge the distance for the required jump. If you don't get it right - it's munch city by the big guy.

And so it continues, one of the most involved sporting computer games of 1989. It is a wonderful innovation as far as themes go, and I highly recommend you checking it out.

However, if you are into games that you want to have around for a long time and buy as a total challenge, with almost unreachable scores and a myriad frames of varying degrees of challenge, *Ugh-lympics* may be a little immature for your tastes. It is a terrific game for more than one player, but in the thinking times of solitude, you are going to want more action and strategy than Cave *Ugh-lympics* can provide. ■

Review copy courtesy of ECP
(075) 96 3488 RRP
C64 disk $29.13

Clicked on Games

Neuromancer

In the style of Hacker, Richard Sylsby examines the ultimate in computer adventures.

Awakening to the stark reality of the sunrise, you raise your head from the bowl of spaghetti that had served as a resting place to recover from your drunken stupor.

You wipe the Bolognese sauce from your eyes, squinting at the sudden flood of sunlight announcing to all those who can raise an eyelid the presence of a new day.

It is some time in the year 2058. Your thoughts are directed at the true meaning of life. Your life in particular. You have come to the realization that it is time to sober up, and straighten out a few things that have become elongated throughout the stream of time.

Your real world location is Chiba City, by Tokyo Bay in the Kanto District of South Central Honshu, Japan. At one end of the city is the towering concrete hologram of Fuji Electric, dominating the sky over the high-tech zone. At the other end is the Chiba Spaceport, gateway to the orbital colonies of Freeside and Zion Clusters, if you can get through customs, that is!

This is the situation you find yourself in *Neuromancer*, the latest role playing game from Interplay Productions.

You have come to the realization that you haven't seen many of your friends lately. You've heard rumours that several cyberspace cowboys have disappeared. You suspect that the answer lies in cyberspace, but you've fallen on hard times. But now it's time to act. The fate of your remaining friends, and yourself, depends on your successful solution of this bizarre mystery.

You'll start the game by manoeuvring your character through the "Real World" areas of Chiba City. In the Real World interaction with the citizens of Chiba isimportant. Be especially careful when extracting information from the girls who give their services to the massage parlours, though. Information is power and you don't have much when you start.

When you want to converse with a local of Chiba City you have to click your character into "Talk Mode". You carry on conversations with other characters through the use of "Word balloons". Word balloons allow you to choose among several responses or questions that are appropriate to the situation. But choose your words carefully. Through dialogue, you can make friends or enemies.

Some people can be helpful, going so far as to give you things you need. Others can be downright unfriendly, keeping vital information from you if you say the wrong things.

An important note when taking part in *Neuromancer* is the need for knowledge in the form of skill chips. Skills in the form of "skill chips" are available for purchase in Chiba City, if you have the money to afford them. Skill chips are implanted directly into the brain jack on the side of the skull of your character. This gives you instant access to that particular knowledge. Skill chips cover a wide range of abilities, from foreign languages to high-tech cyberspace skills. There is even a Cryptology chip which enables you to analyse passwords and decode them.

The Real World offers another important source of information. This is in the form of PAX or Public Access Booth. These are inconveniently located around

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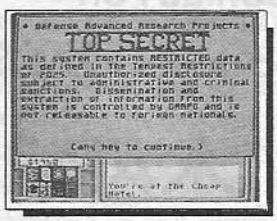
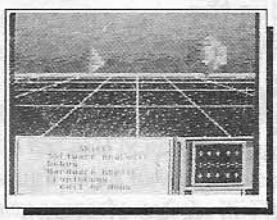
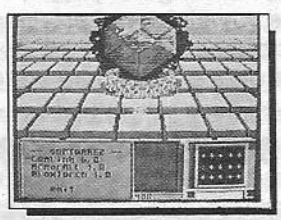
the city, and help you to stay current with the rest of the world. The PAX booths offer such services as a news paper called the *Night City News*, a public Bulletin Board Service for personal messages along with friendly banking services.

The best way to get started in your quest is to locate the basic hardware - your deck - and the software needed to connect you with the public computer network. You'll find a basic deck with Comlink software waiting for you right where you left it - whereever that is . . .

With your equipment you can hook up into computer systems or bases all over the world. This is all in the search for knowledge about what has been happening. But remember, nowadays hacking can get you into trouble. A hundred years from now, it can get you killed.







As a cowboy you can tap your consciousness into a database. This electronic universe, known as Cyberspace, ties together all other computer networks. Hidden from the common citizen who is limited to accessing bases through the Comlink system, the Cyberspace grid represents information in its purest form.

Hooking into a new database, the television grey world of Chiba City is transformed into the technicolor world of Cyberspace. Visually, cyberspace is a three dimensional representation of all the bases which look like geometric shapes.

Cyberspace is just an image generated in your brain by your cyberspace deck. Without the deck, cyberspace would just be a complex sea of information, that humans would not be able to understand. But you're not going in alone; you've got 30 megs on line, three viruses, which can be used to defeat computer security in over 40 databases, six icebreakers and a ROM constructor riding shotgun.

Each computer system has different defenses in cyberspace, so it's not just as easy as waltzing up to the front door, ringing the door bell and asking the security guard for a look around. Breaking into the database guarantees a confrontation with glittering ICE and various Artificial Intelligence.

ICE is Intrusion Countermeasure Electronics, which acts as an independent, semi-intelligent barrier, keeping cowboys like you from getting inside the base.

AI or Artificial Intelligence is a program where they attempted quite successfully to model human intelligence. Now AIs have developed into individual entities capable of being granted citizenship by certain countries. AIs are fully capable of defending themselves, so when contemplating going into battle with them I suggest that you should consider carefully.

An AI attack is a unique experience. This type of battle is often referred to as "flatlining". The AI feeds a neural shock into the victim's brain, keeping the cowboy's brain dead long enough for his physical body to stop functioning.

Despite these grim warnings I believe you should have a ball playing this cyberpunk role-playing adventure. The game will keep you sitting on the edge of your seat for many spine tingling hours.

Neuromancer the game is actually taken from the book of the same name by William Gibson, with news in the pipeline that it is soon to become a major motion picture.

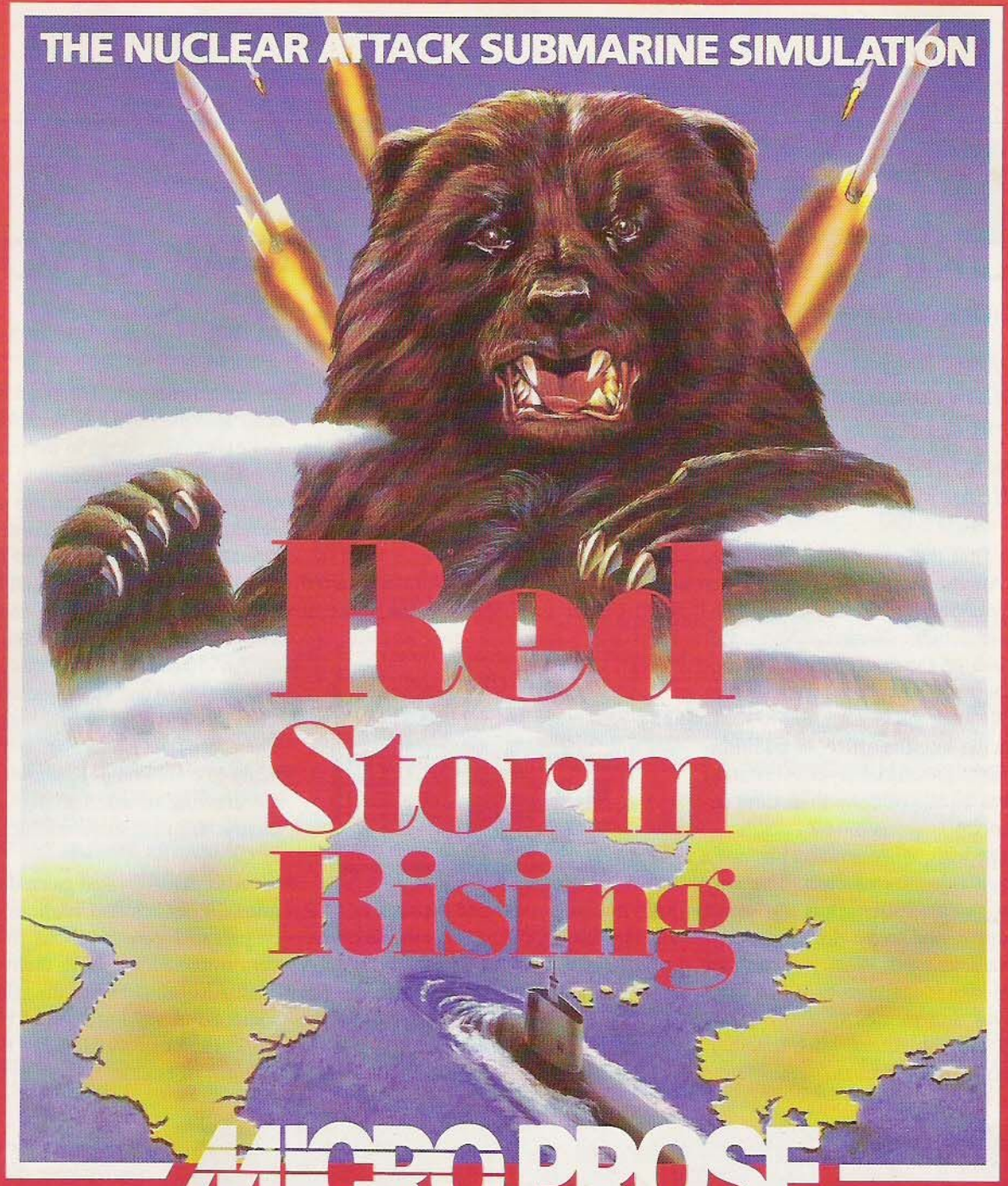
I rate *Neuromancer* as one of the best adventure games that I have seen, although the action doesn't take place quite as quickly as it would in a shoot em' up. But it still does have appeal to the senses. The screen is anything but sparse of colour. The game is also set to a fully digitized original soundtrack by Devo. They have taken their time with this to create one of the new breed of adventure games, which truly has every base covered.

Video Games and Computer Entertainment magazine must have had similar feeling to my own when it nominated *Neuromancer* the Best Computer Adventure Game.

So if you have a love for adventure, intrigue, intellect, and acquired skill that you put into motion, hacking your way through the future - then *Neuromancer* is the game that you just have to get so as to be up with the latest and greatest in computer adventure games. ■

Our review copy came from
Ozi Soft (02) 211 1266
RRP C64 $35.95

THE NUCLEAR ATTACK SUBMARINE SIMULATION



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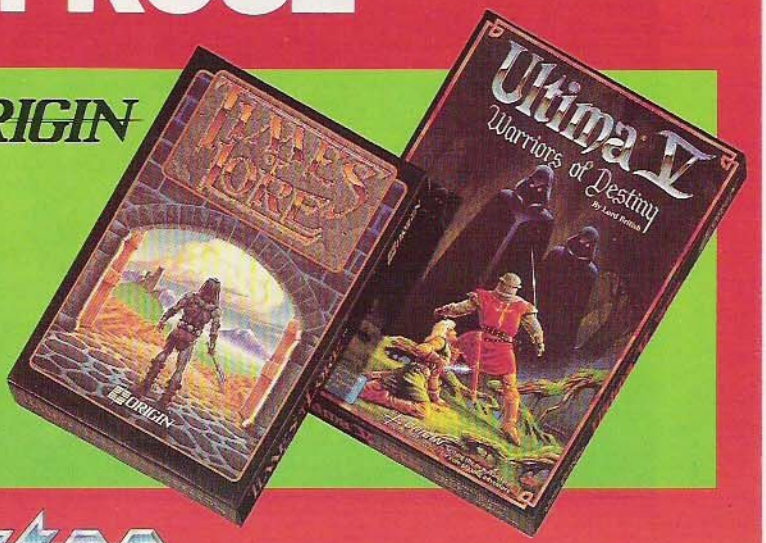

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THE CHALLENGE CONTINUES

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Making a "Splash" in Downunder

by Andrew Farrell

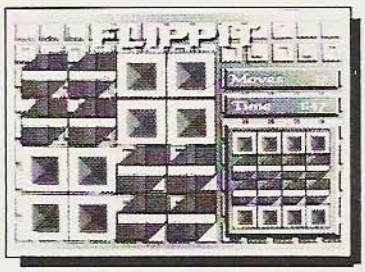
Australia's software industry has seen numerous development teams come and go. The latest software house to launch forward is a Perth based operation. Andrew Farrell interviewed the man behind the name.

At first the game didn't grab me. Another strategy program that sounded like a remake of a public domain downer. Then I met the guy behind the concept, Alex Aguero, and sat down and played the program. I love it.

Bouncing into the office, in traditional Perth Entrepreneurial style, Alex and I took a seat on the balcony to discuss developments.

To start with, this operation has had a good sized injection of cash. The way Alex saw things, if the setup was worth setting up, it had to be done properly. The photo says it all. What you can't see are the hidden megabytes of RAM, hard disk drives and metres of cabling that make all the computers work together. Every programmer's dream. Transputers are on the way.

Aralia, now called Splash, started with bigger projects than the likes of *Fli*



ppit. In case you missed the review(ACR January issue), *Flippit* was the first program to roll off the Splash production line. More are promised. But these are only the start, the cash flow, to get the bigger projects off the ground.

Alex has the energy and enthusiasm to make it happen. Couple his business head with the guys he's assembled and we can expect big things in the near future.

All involved are dedicated, loyal hackers and designers. Some are out of university, others dropped out of high-paying jobs, a few walked in off the street. All share the drive and determination to work together and make it live. They sleep, eat and breath computers.

An interesting side to this story is the number of Atari fanatics amongst the team that have become Amiga converts. There's a few C64ers in there as well, ready to cram into 64K whatever idea hits the drawing board. Talking nothing but binary, thinking in Assembler, dreaming in C.

Alex demonstrated game designer programs, graphics and routines that are to be part of future creations. It all looked very impressive. I wish them every success. Australia has got the talent. At last someone is making a go of putting it to work. How can we all help? By buying a *Flippit*, of course! ■

The Splash team of programmers:
Front row (seated): Stephen Zardonowski (Amiga programmer), Alex Aguero (leader), Laurie Smithdale, in hat (Amiga and C64, Jocelyn Palacios (computer graphics), Derek Giles (Macintosh programmer), Greg Colley (Atari and Amiga).
Back row (standing): Mark Martin (Amstrad), Dave Musgrave (IBM), Warren Pynt (Amstrad), Mark Spronck (Amiga and Atari)

Word processing on the C-128 (Part 2)

Last month Frank Paterson explained the concepts of wordprocessing. Now he gets down to the nitty gritty - picking a C128 power plant for your own word crunching needs.

THIS MONTH we look at ten word processors, give a summary of each and tabulate their features for easy reference. You may wish to refer to last month's article from time to time.

Fontmaster 128

Fontmaster is a unique word processor for the 128 in its native mode. It is the only one, other than those that run under GEOS, to provide a variety of fonts (over 50!) and the ability to include graphics in your text. The fonts are provided on the program disk but the graphics must come from your own *Print Shop* or *Doodle* library and be converted via one of the utility programs supplied. Fonts and character sets can be edited or created with other utilities, also supplied.

In addition to fonts, the program also utilises the double height feature found on some printers, so you can print very pleasing headlines or titles on your documents in both plain characters and fonts.

Graphics can be placed anywhere in your document and *Fontmaster* will arrange the text around them. It will also print in up to four columns and can reverse the direction of the screen for use with foreign languages which read from right to left. Appropriate fonts are supplied.

There is a "Screen Protector" built in to the program. If no action occurs at the keyboard for some time, *Fontmaster* will cycle the display through all the 128's colours, preventing the screen from having an image burnt into it. At the first subsequent keystroke, normal colours are restored automatically.

Other features include standard enhancement of fonts (ie, italic, underline, super and subscripts, etc), 100,000 word spell checker, use of RAM expansion, macro instructions, decimal or Roman page numbers, user adjustable proportional spacing, print a marked block of text and many more.

Fontmaster 128 was reviewed by Eric Holroyd in the October '88 issue of ACR. Review copy from Dastron Pty Ltd, phone (02) 712 3124. RRP $89.95.

Better Working Word Pro 128

Word Pro 128 is an upgrade of the original program well known in C-64 circles .

One of its nicest features is its software driven proportional print. Though built-in proportional print is becoming the norm in most dot-matrix printers these days, older models don't have it, and there are plenty of those around - including the one on my desk! *Word Pro* makes it available to everyone.

Data can be stored on disk in three ways; one suitable for Punter BBS bulletin board systems, one in conventional Commodore ASCII SEQuential files and the last in true ASCII SEQ files, making transport of data between programs simple and easy.

There are two independent text areas available, as in *Pocket Writer* and *Superscript*, as well as provision for ten user-definable characters and macro instructions. Macros allow the user to assign a command or series of commands to a single key, or perhaps two or three keys. Here, the macro feature can be used to define text to be entered, rather than commands to be executed. If you have to repeatedly type a long phrase, the macro facility relieves tedium and improves your speed.

There are two methods of re-starting *Word Pro*, should you ever crash it. One preserves your text and the other, which saves only on re-loading time, doesn't. I can't think how a word processor could crash unless there was a programming problem, power spike or something like that, but in any case, the facility is there if you need it.

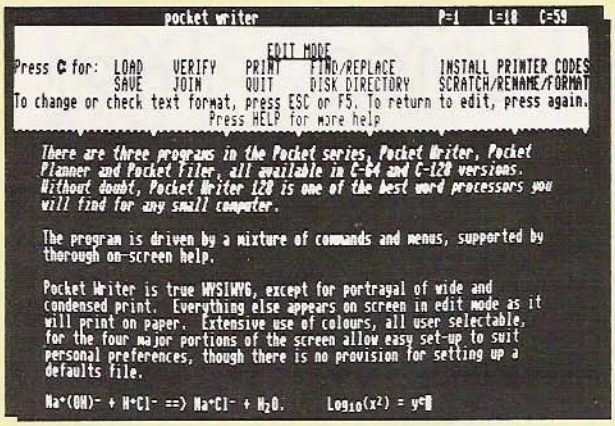
Two black marks were recorded. First, the manual. It seemed to be written by the programmer: if it wasn't, it doesn't matter, because too much prior knowledge was assumed. Secondly, if you wanted to define a custom printer driver for a printer not covered by the drivers supplied, for five dollars you could obtain an additional disk containing a printer-driver generator. From the States. Great!!

Reviewed by Eric Holroyd in January 1989 ACR. Review copy from Pactronics (02) 407 0261, RRP $89.00.

Fleet System 4

As its name implies, *Fleet System 4* is not just a word processor. It is a productivity package in which the writing component is the word processor, a 90,000 word dictionary for spell checking, and a Thesaurus. Also included is a memory-based database program called *Fleet Filer*. It is very fast, being memory-based, and operates hand-in-hand with the word processor for mail-merges, etc.

The spell checker is fast - 45 seconds to check a 10 page document, while the Thesaurus almost instantly gives lists of synonyms and antonyms for a particular word.



There are two text areas, each independent of the other, extensive and well organised on-screen help, and support for up to four disk drives as well as a RAM drive. Document files are stored as USR files on the disk, but there is an option to store and read them in standard Commodore SEQuential format, for easy transport to and from other programs.

The help screens are excellent and designed to eliminate the need to have a quick reference card with you as you work; however if you need the written word, the manual is of similar high standard - well laid out, readable and informative.

Reviewed in the June '88 issue of ACR by Eric Holroyd. Available in C-64 and C-128 versions. Review copy cmae from Computermate Products, Sydney. Phone (02) 457 8118. RRP $89 for the 128 version (System 4) and $69 for the 64 version (System 2+).

Pocket Writer 128

There are three programs in the Pocket series, *Pocket Writer*, *Pocket Planner* and *Pocket Filer*, all available in C-64 and C-128 versions. Without doubt, *Pocket Writer 128* is one of the best word processors you will find for any small computer.

The program is driven by a mixture of commands and menus, supported by thorough on-screen help.

Help is usually a two-step process. The first level is a menu. If you still don't know what to do, press HELP again and a help file will be read from the program disk. For example, if you want help while you're in the File Management menu, press HELP and up comes a screen full of file management information. If you're in the Text Enhancement menu and you ask for help, the help you get relates to text enhancement only. You don't have to scroll through a pile of other topics to find the one you're after - you are served only relevant info. A model for others to follow!

Pocket Writer is true WYSIWYG, except for portrayal of wide and condensed print. Everything else appears on screen in edit mode as it will print on paper. Extensive use of colours, all user selectable, for the four major portions of the screen allow easy set-up to suit personal preferences, though there is no provision for setting up a defaults file.

The program stores its files in program (PRG) form on the disk. However, there are facilities for converting text in memory to SEQuential format and back to PRG, and also for loading sequential and ASCII files. Both facilities assist import/export of documents to and from other programs. You can also print to disk, which stores a true ASCII file on the disk in Commodore SEQuential format - this sets up formatted data ready for transmission by modem.

There is a full set of formatting, text enhancement and cursor controls, though there is no "delete word" command. Also, the "delete from cursor" function often takes a few words from before the cursor as well.

The series 2 versions of Pocket software all use RAM expansion if it is available.

Review copy from Questor (02) 62 7944.

Superscript 128

Superscript. Ah, how do I love thee? Let me count the ways!

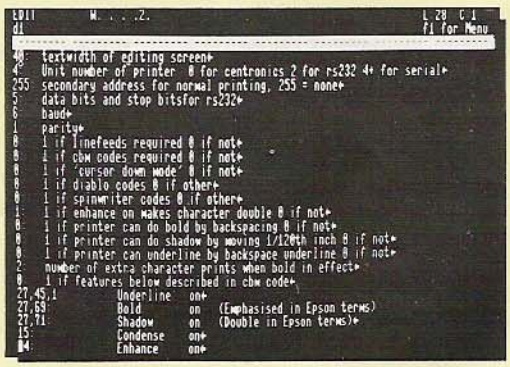
You can probably tell already that I like this one. It's been around for a while, it's *EasyScript's* big brother and it's good. *SuperScript* has been my word processor of choice for two years now, and though I've looked at others and been impressed, I keep coming back to it.

Superscript is a post-formatting, menu-driven word processor which lacks only a few top-of-the-line features. It cannot handle columns, it makes no attempt at on-screen text enhancement, it's not as flexible as it could be in handling two drive units (ie, 8 and 9), and it lacks easy access to user definable characters - they are accessible only by modifying the printer driver, not direct from the editing screen, a la *EasyScript*.

On the plus side, the excellent menu system is enhanced by a parallel command system which greatly increases speed. In addition to that, every alphanumeric key on the keyboard can be programmed (most of them twice) to execute a SuperScript function or series of functions, so that the program can be easily customised to suit personal preferences and requirements. Commonly used phrases can also be assigned to keys, to save typing. The calculator feature, while not being graphically presented as in *WordWriter*, is so powerful that you can set up what amounts to a mini-spreadsheet with automatic horizontal and vertical totals.

SuperScript can co-reside in memory with *SuperBase*, so that mail-merges can be done direct from a database address file instead of via a merge list.

There are two files which tailor the program for you. The first is the defaults



file, which contains your customised key definitions, while the second is the printer definition which contains all the codes necessary to make your printer do its thing. The printer definition is linked to the defaults file so both are automatically activated when you load the program. Either may be loaded as a single document and edited, so it's easy to make changes which can then be implemented right away and/or stored on disk for future use.

There are two text areas and you can swap freely between the two. I use the second, smaller area to store and display my outline and as a note pad on which to record ideas while I write. It is also handy when you want to re-define a character, which can only be done by editing the printer definition in a work area and re-installing it.

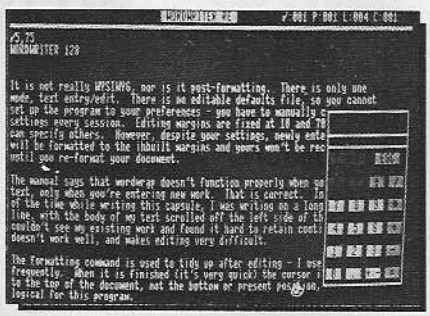
An excellent program with an excellent manual.

Review copy from OziSoft (02) 211 1266. RRP $149.95.

Wordwriter 128

Wordwriter 128 has some unusual approaches in its design.

It is not really WYSIWYG, nor is it post-formatting. There is only one mode, text entry/edit. There is no editable defaults file, so you cannot set up the program to your preferences - you have to manually change settings every session. Editing margins are fixed at 10 and 70, though you can specify others. However, despite your settings, newly entered text will be formatted to the inbuilt margins and yours won't be recognised until you re-format your document.



The manual says that wordwrap doesn't function properly when you're editing text, only when you're entering new work. That is correct. In fact, most of the time while writing this capsule, I was writing on a long single line, with the body of my text scrolled off the left side of the screen. I couldn't see my existing work and found it hard to retain continuity. It doesn't work well, and makes editing very difficult.

The formatting command is used to tidy up after editing - I used it frequently. When it is finished (it's very quick) the cursor is returned to the top of the document, not the bottom or present position, as would be logical for this program.

There is no "Go to end of text" command. To do it, you have to go to the bottom of the document (first word on the last line) and then go to the right of the line. Apart from that limitation, there is a comprehensive array of cursor controls, insert and delete functions. Once you get your editing sorted out, on-screen display of text enhancements is pleasing.

The program is basically menu-driven, with commonly used features command driven as well, for speed. Ten printer features can be accessed directly from the menus, and there is a convenient though somewhat unusually implemented facility for sending any other escape code or command to the printer.

RRP $99.95.

WordStar

Part of my reason for upgrading to a C-128 from the trusty 64 was its CPM capability which supports many "industry standard" programs not normally available to Commodore users.

One of these is *WordStar* which I have used extensively in writing and periodically editing a technical manual for The Boss. The layout is formal, with lots of paragraphing, multiple indenting, outdenting, headers, footers, columns, tables of contents, etc. It is in a continual process of review and amendment which I don't believe could have been done on a lesser program.

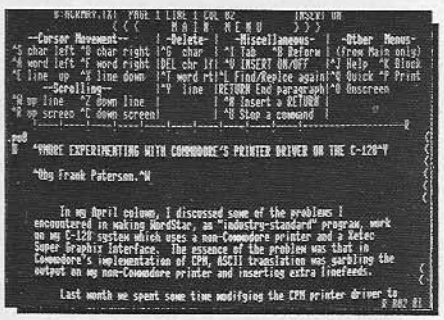
Without doubt, *WordStar* is the biggest, best and most comprehensive word processor you're likely to use on a 128, and it's impossible to do it justice in a 350 word summary. What I will do instead is try to correct a few wrong impressions I have heard about this program from people who have used improperly installed early versions.

Early versions only gave limited control over dot-matrix printers because in the days when those versions were written, dot-matrix printers were, well, crude. The highest, and current CPM version, *WordStar Professional Release 4*, allows full control over the current crop of high quality dot-matrix printers.

WordStar has to be installed to your computer. Under CPM the C-128 emulates an ADM 31 terminal, but Commodore have included additional enhancements which should be taken advantage of. This can only be done if you properly install *WordStar* and use the installation manual. The printer must be correctly installed at the same time.

CPM has been upgraded by Commodore, and in addition to the latest CPM+.SYS file, there are a number of configuration utilities which should be investigated and used. With them, you can configure a special CPM+.SYS system file for *WordStar* so you can take full advantage of the features of both the computer and the program.

If you own a 1750 RAM expander *WordStar* really shines because the overlays, which are used extensively, are called from the RAM disk rather than the floppy. Fantastic!



(continued on page 32)

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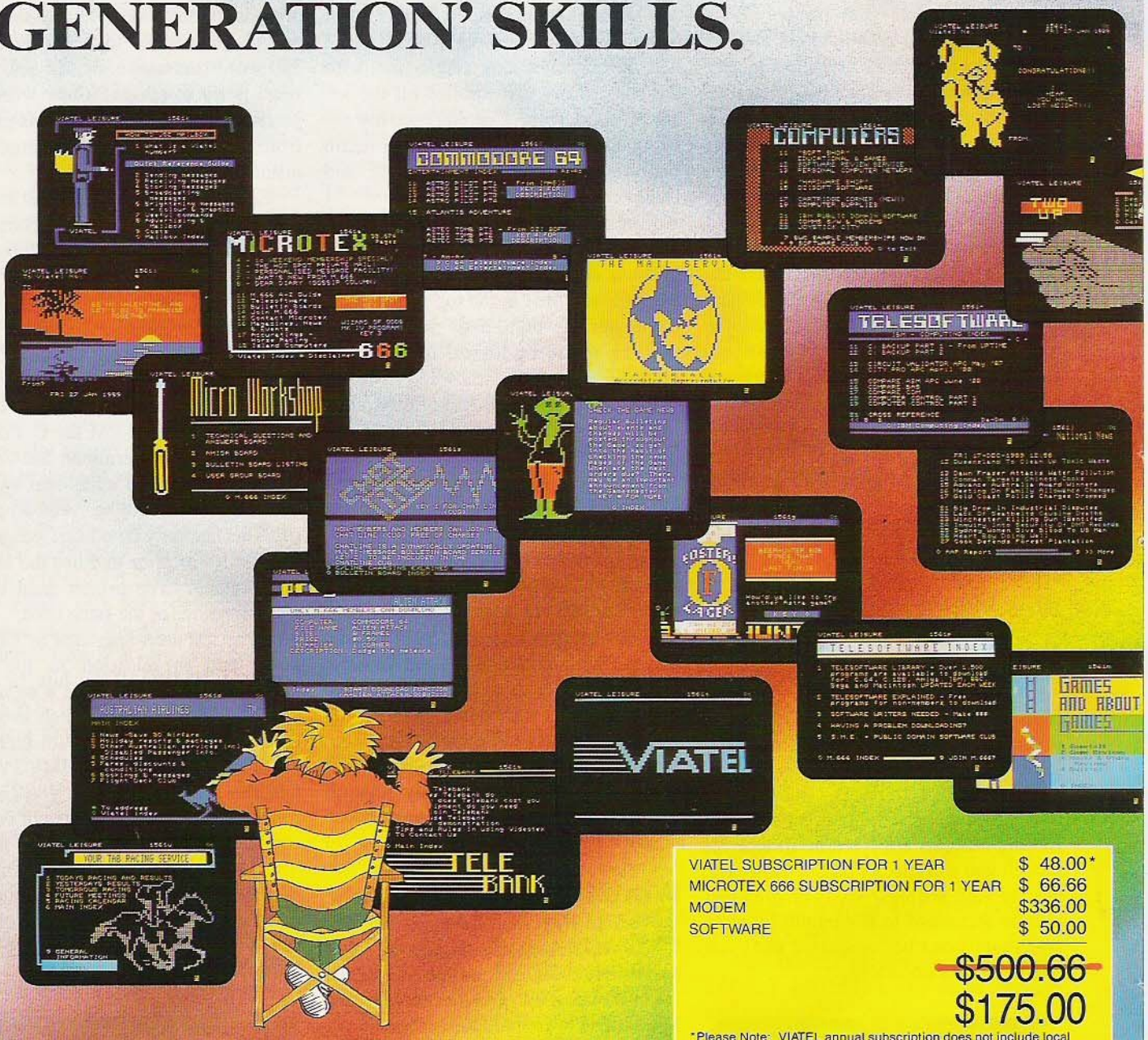

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The only real limitations are hardware problems that are evident on all CPM applications on the 128. They are slow screen refresh and, if you haven't got a RAM expander, relatively slow (compared to industry standards) floppy disk access. As I say, they are computer problems, not *WordStar's* and in any case are not too bad to live with.

Oh, and the price. Seven hundred dollars - yes, you read right - for outright purchase. Or, and here we get back on the tracks, $238.00 including tax and delivery to your door, for an upgrade. At that price it's pitched at the serious user, not the occasional letter writer.

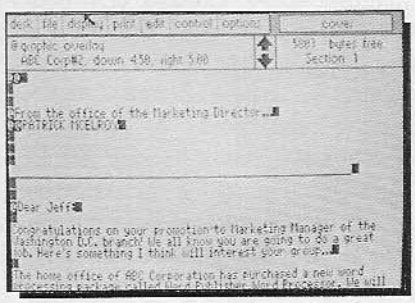
Some features? Oh, all right. Everything that the other programs have, plus automatic contents and index generation, columns, WYSIWYG, document size limited only by storage capacity, huge spellchecker, thesaurus, over 350 commands and functions, comprehensive help screens with adjustable help level, runs other programs from within itself ... the list is endless.

From Micropro International.Review copy from WordStar Australia.

GeoWrite

Much has been written in this magazine about GEOS and its applications, so *geoWrite* will need little introduction.

GeoWrite, like all other GEOS applications, is menu driven via drop-down menus and a pointer controlled by the mouse or joystick. Later versions (from 1. 3 onwards) have parallel commands for some of the most commonly used features. These do add considerable convenience, especially for 1350 digital mouse users whose mice are not as precise or as fast as mice should be. An analogue mouse (the 1351) which corrects these problems is available.



GEOS supports multiple drives of different kinds, ie 1541, 1571 and 1581 and also RAM expansion. Combine the RAM expansion with *geoWrite's* obvious strong point, full WYSIWYG capability, and it becomes a fast, powerful writing tool which is a joy to use.

In an introductory article on GEOS 128 in the July '88 issue, I made mention of a few deficiencies in version 1.3 which I thought significant. Lack of full margin control, no headers and footers or super and subscripts among other things put *geoWrite* out of the running as a program for serious writing. Happily, that's all been fixed in *geoWrite 128*, so that the program is now a viable option as a serious word processor. Harry Waterworth had a closer look in the September issue.

We both conclude that the GEOS system, in particular *geoWrite 128*, is an excellent package and worthy of your consideration.

GeoWrite 128 from Berkeley Softworks. Review copy from Computermate, ph (02) 457 8118. RRP $119.00.

Better Working Word Publisher

Word Publisher runs under GEOS in 40 column mode. Some of its features improve on facilities found in *geoWrite* while others are new and innovative.

Areas of improvement are margin control, speed of text entry, provision of su per and subscripts, pagination, indentation, outdentation, headers and footer s. (As noted in the *geoWrite* capsule, *geoWrite 128* also offers improvement i n these areas.)

Word Publisher is a post formatting program, and claims benefits arising from that. Text entry is much faster, as is scrolling around the page. Fonts, enhancements and control codes for margins or the printer are marked by special symbols, as in other word processors. When display mode is selected, the result is just like *geoWrite*, ie full WYSIWYG.

Text can be printed in your printer's draft mode at draft speed - useful for proofing a document. When you do this, enhancements marked on the editing screen with a special character may be marked with the same character as in the draft; you may choose to merely show the marks or to have a decode printed next to each as it occurs in the text.

Word Publisher can also print to disk and as it does so, it will translate the complex graphics and true ASCII information contained in its files to simple Commodore SEQuential file format for use in other programs.

I reviewed this program in detail for ACR, but it hasn't yet been published. I suggest you wait for the review before you go out and buy.

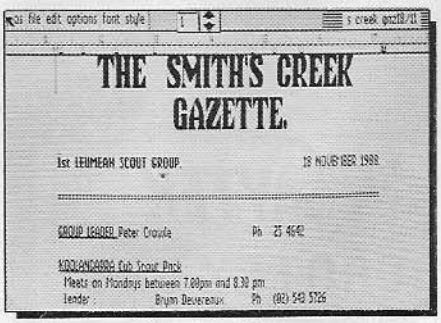
From Spinnaker Software. Review copy from Pactronics, tel (02) 407 0261. RRP $69.95.

Paperclip III

Paperclip III from Batteries Included is a very powerful word processor posse ssing all the basics and most of the bells and whistles.

It is written for both the 128 and the 64. Each version is on a separate dis k, but both are included in the pack and share a common manual. *Paperclip* is a large and complex program and in both versions conserves memory by the use of overlay files.

Paperclip III is a post-formatting wordprocessor. It displays all enhanced printing on-screen except non-standard print pitches, ie other than ten characters per inch.



Word Publisher

(continued on p. 40, Comparison Table on pages 35/35)

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Commodore 128 word processor comparison table

	Font-master 128	Fleet System 4	Pocket Writer 128	Super Script 128	Word Writer 128	Word Star 3.3v	Geo Write 1.3	Word Publisher	Paper Clip III	Word-pro 128
Type 1	PFG+	PF	WG	PF G-	WG	WG-	WG+	WG+	PFG-	PF
Operation2	C	C	MC	MC	MC	C	MC3	MC3	MC	C
Help4	B 5	I	I	B5	B	I5	-	B	-5	B
ASCII6	P7	CAP	CA	C	CAP	A8	P	CAP	CA	CA7
Printer Control	U	U	U	U	U10	OS11	OS	OS	U	U
CURSOR CONTROLS							GEOS and mouse accelerate cursor			
Sentence Fwd/ Back	*	-	-	-	-	-	M12	M12	-	-
ParagraphFwd/Back	-	-	-	*	-	-	M12	M12	-	-
Screen Fwd / Back	*	-	*	*	*	*	*	*	*	-
Tab back	*	-	*	*	*	-	-	-	-	-
Vertical tabs 13	-	-	-	*	-	*	-	-	*	-
Go to Top/ Bottom of screen	T	T	T	TB	T	TB	T	T	T	T
Go to Top/ Bottom of document	*	*	*	*	*	*	*	*14	*	T
Go to Line Number	-	*	-	*	-	-	-	-	-	*
Go to Start/ End of block	-	-	-	S	-	SE	-	-	-	-
Go to Start/ End of current line	*	-	*	*	*	*	M12	*	-	-
Scroll text15 continuously	P	P	EP	P	-	EP	EP	EP	EP	P
EDIT COMMANDS							GEOS and mouse accelerate edit functions			
Delete to left	*	*	*	*	*	*	*	*	*	*
Delete to right	*	-	*	-	-	*	-	*	*	-
Delete word	-	-	-	*	*	*	-	*	via16 block	*
Delete line	*	*	*	*	*	*	-	-	*	*
Insert line	*	*	*	*	*	*	*	*	*	*
Delete to end of line	*	*	-	*	-	*	-	-	-	-
Delete to beginning of line	-	-	-	-	-	*	-	-	-	-
Delete sentence	-	-	-	*	-	*	-	-	via16 block	*
Deleteparagraph	-	-	-	*	-	-	-	-	-	*
Delete rest of text	*	*	*	*	*	-	-	-	*	*
Delete all text	-	*	-	*	*	-	-	-	-	*
Find and Replace	-	*	*	*	*	*	Later versions	Find only	*	*
Use wildcards in17 Find and Replace	*	*	*	*	-	*	not determined	-	*	-
Delete buffer 18	-	-	blocks only	-	-	-	-	-	-	*
BLOCK, AREA or RANGE FUNCTIONS										
Move	*	*	*	*	*	*	*	*	*	*
Copy	*	*	*	*	*	*	*	*	*	*
Delete	*	*	*	*	*	*	*	*	*	*
Write block to disk file 19	*	*	via 2nd text area	via 2nd text area	*	*	*	*	*	via 2nd text area
Change case	-	-	-	*	-	-	-	-	*	-
Transfer block to 2nd text area	N/A	*	*	*	N/A	N/A	N/A	N/A	N/A	*
Read disk file and insert at cursor	*	*	*	*	*	*	*	*	*	*
Can block mode handle columns?	YES	NO	YES	NO	NO	YES	NO	NO	YES	NO
Sort columns?	NO	NO	YES	NO	NO	NO	NO	NO	YES	Not determined
CALCULATOR										
Type 20	-	RC	RC	RC21	G	-	-	-	RC	-
Auto entry of result to text	N/A	*	*	*	*	N/A	N/A	N/A	*	N/A
TEXT LAYOUT 22										
Proportional print 23	S	P	P	P	-	P	S	S	P	S
Indentation	*	*	*	*	*	*	-	-	*	*
Outdent (margin release)	*	*	*	*	-	*	-	-	*	*

	Font-master 128	Fleet System 4	Pocket Writer 128	Super Script 128	Word Writer 128	Word Star 3.3v	Geo Write 1.3	Word Publisher	Paper Clip	Word-pro 128
Headers &Footers	*	*	*	*	*	*	later versions	*	*	*
Multi-line headers & footers	-	-	*	*	-	-	not determined	-	*	*
Separate hdrs/ ftrs for odd/even pages	-	-	-	*	-	*	not determined	-	*	*
Merge file	*	*	*	*	*	*	separate program	*	*	*
OUTPUT										
Print to disk	-	*	*	*	-	*	-	*	*	*
Video preview	*	*	not reqd	*	-	*2 4	*	*	*	*
Print a block 19	*	*	via 2nd text area	via 2nd text area	-	*	-	-	-	via 2nd text area
Print from desired page number?	-	*	from cursor	*	from cursor	*	-	-	*	*
Print odd or even pages?	-	-	-	*	-	*	-	-	-	*
Offset print? 25	-	-	-	*	-	*	-	-	-	-
Odd or even offset 26	*	-	-	*	-	*	-	-	-	*
Output in columns?4 cols	-	-	-	-	via 27 blocks	-	-	-	2 cols	
GENERAL										
Use RAM expansion?	-	*	series 2 & later	-	-	*2 8	*	not determined	*	-
Extra text areas?	-	*	*	*	-	-	-	-	-	*
Programmable keys (macros)	*	*	note 29	*	-	-	-	-	*	*
Spell check	*	*	note 30	*	*	*	separate program	*	*	*
Multiple character sets	*	-	-	-	-	-	*	*	-	-
Graphics in text?	*	-	-	-	-	-	*	*	-	-
Linked files	*	*	*	*	*	notreqd	-	-	*	*
Contents or index generator	-	-	-	-	-	later versions-	-	*	*	
RRP 31	$89.95	$89.00		$149.95	$99.95	see note32	see note 33	$69.95	$89.95	$89.00

How to use this chart

This table lists the features of the ten word processors examined for easy comparison.

An asterisk (*) means a feature is present; a dash means it is not.

Where a feature is doubled, eg "Go to Top/ Bottom of Screen", then one or the other or both features may be available. What is available is shown by the first letter of the listed feature(s). In this example, if only "Go to Top of screen" was available, it would be shown by "T" in the table. If both were a vailable, then the table would show "TB", etc. The following notes are provided to help explain some parts of the table:-

1 PF = Post Formatting. W = WYSIWYG. G = Graphics used to display enhanc ed text. G- = simple highlighting or colours used to display enhanced text. G+ = full graphics used to display enhanced text, fonts, pictures, etc.

2 C = Command driven. M = Menu driven. M C = combination of the two.

3 All operations assisted by GEOS and its use of point and click.

4 B = basic help - usually lists of keystrokes. I = intelligent help - se e last month's article.

5 Assisted by an excellent manual.

6 P = special proprietary files used to store text and format. May be PRG , USR or SEQ type. A = outputs or accepts true ASCII. C = outputs or accept s Commodore ASCII

7 Uses translator programs (supplied).

8 Operates under CPM which is limited to true ASCII.

9 U = User definable printer driver. OS = limited to operating system requirements or specific printer drivers supplied by software manufacturers.

10 Only 10 features able to be modified.

11 Installation procedure allows customisation of printer driver, but it is not a task for the faint-hearted.

12 Rapidly accessible via mouse control of cursor.

13 Vertical tabs are place-markers in your on-screen text. They are used in edit mode to temporarily mark your place so you can quickly return after mo ving around in your text.

14 Documents consist of a number of automatically generated and linked sections. You can only go to the top or bottom of the current section.

15 P = available in video preview mode. E = available in edit mode.

16 You have to mark a block, then perform the function.

17 Most programs use a "sliding match" system which reduces or eliminates the need for wildcards.

18 Deleted text is stored in a buffer for recovery in case of errors.

19 Some programs with two text areas require you to copy the block to the s econd text area, then save that as a normal document.

20 RC = works on rows and columns of figures in text. G = graphical repres entation of an electronic calculator.

21 SuperScript's calculator function is exceptionally powerful and flexible , though not graphically represented.

22 Basic features such as left and right margins, pagination, etc are not l isted. All programs have them.

23 P = proportional print available only if your printer has it. S = avail able through software, whether or not your printer has it.

24 Control codes for text enhancement may be hidden, but otherwise the disp lay remains unchanged.

25 Used to shift output across the page, eg to leave room at the left for b inding.

26 As for 25, but used when double sided reproduction of your output is planned.

27 Block mode permits columns of text to be placed side by side, though editing must be done in a single column of text.

28 CPM operating system uses RAM expansion. WordStar itself doesn't.

29 Has 10 programmable characters. Doesn't allow strings or commands to be assigned to a key.

30 Dictionary must be purchased separately. Until then, you can create your own dictionary word by word and use that instead.

31 Approximate only. They will vary. Use them as a guide.

32 Current version (not tested here) is WordStar Professional release 4. $ 700 initial purchase or $238 for upgrade from existing WordStar product.

33 GeoWrite 1.3 included in GEOS 128 package - package price $129.00. Later versions packaged in GeoWrite Workshop 128 at $119.00. ■

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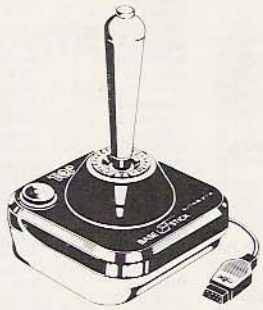

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● Recognises presence of RAM expansion and automatically uses it in place of overlays and for the spell checker. Using the RAM expander, it permits sp ell-check as you type if desired. It will also expand a trigger word into a multi -line phrase, automatically.

● Permits two drive units (8 and 9) to be set up as drives 0 and 1 of a dual unit, for flexible file handling.

● Writes document files containing format information or unformatted ASCII files to disk in either true ASCII or Commodore ASCII.

● Automatic re-formatting of edit screen after addition or deletion of text.

● Automatic table of contents.

● Optional 50 line video preview. (Nearly a full page per screen.)

● Four way scrolling in video preview.

● Selectable very fast scrolling and cursor movement in edit mode.

● Define the end of a range with a character, as well as by cursor movement. That is, if you want your range to end at the end of a sentence, just hit the full-stop key. The end of the marked range will advance to the end of the sentence. Any character can be used instead of the full-stop.

● Define, delete, move, sort and add columns.

● Page numbering in Arabic or Roman numerals.

● User definable characters for foreign languages and printer control.

Some deficiencies

● No on-screen help - just some basic menus for a limited range of functio ns. An excellent manual with "Facts At Your Fingertips" style appendices makes up to a large extent.

● No command to move the cursor by the word, by the sentence or by the paragraph or to the start or end of present line.

● No delete word, delete to start of line, delete to end of line or delete to end of document.

● Slow to find the starting page of a print run, except for page 1.

Paperclip III was reviewed by Adam Rigby in the May '88 issue of ACR.

Review copy from ECP (075) 96 3488. RRP $89.95. ■

See comparison table on page 40

Australian Commodore Review **SUITE 64**

Disk Magazine No 13

Double sided disk

★ **Charles** - a huge graphics adventure with animation. You are Charles and must locate the missing computer and return it. Joystick control enables you to travel over 390 screens during five levels. It maintains high scores.
★ **Stowaway** - a text adventure by Base Seven Software. You are a stowaway on a ship - can you escape?
★ **Blackjack** - Play the computer at this favourite card game. VCR Index - keep a file of all your favourite video cassette recordings, tapes or records.
★ **Graphic Converter** - An invaluable utility that enables you to transfer clip art type graphics from Printshop, Printmaster, Stop Press and even future programs to other formats. You can also convert between various picture types such as Blazing Saddles, Koala Painter, Art Studio, Image System, Artist 64 and others.
★ **Disk Diskassy** - This would have to be the best disk utility ever written for the C64. It's in full machine code and includes a BAM editor, Directory Editor, Sector Editor, Index Maker and Menu Creator. All are menu driven and very easy to use. Ideal for the programmer, hacker and hobbyist.
★ **Disk Label Maker** - tired of boring old disk labels? Now you can print one or two sided labels complete with a directory of what's on the disk or customise your own entires to either an Epson FX or MPS801/803 printer.
★ **Icon Changer** (GEOS) - Ever wished you could change your icon? This program will let you edit them to your own design.
★ **Easy DOS** - A quick little program for obtaining a directory, scratching or unscratching files, renaming programs or changing your disk header.
★ **Cruncher BASIC** - If your pushed for memory this program will in seven parcels compact your program as much as possible by compounding statements onto one line.
★ **Calc** - A simplistic spreadsheet type program which is currently tape based but may be modified to save data to your disk drive.
★ **Font Diskassy** - A character editor that also lets you create pictures by combining characters together.
★ **Graphic Demonstrations** - A selection of pictures and music from hackers and artists around the world.
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Sherlock Super Debtors

C128ers get down to business

When Commodore released the long awaited replacement for the ever popular C64 in 1985, the C128 was an instant success. They sold very well and in fact still remain the fastest selling computer in history ,notching up one million unit sales in less then twelve months.

The sales to date on the Australian market have been in excess of 60,000 units, which is more than double the Amiga 500 base of about 28,000. This is quite a remarkable feat when you consider that for some time the C128D has been priced hundreds of dollars dearer than what would have been expected.

November saw the price of the C128D tumble to the same price as a C64 PROPAK, the bargain price of $599.00. This pricing makes a very affordable 'Small Business' computer which can be used to run C64 software as well. In fact the C128 is five computers in one (C64 - 40 col, c128 - 40/80 col, C/PM - 40/80 col).

The problem to date has been the lack of software for the native 128 mode. The small business packages are either C64 programs converted to run in 80 column with very little if any improvements over the C64 version, or C/PM packages ported over to C128 that do not utilise the extra video ram or the RAM expansion modules available. Most if not all of the business software is not Australian written and does not always work the way you expect.

Small business products

I am pleased to announce one Australian company has taken up the challenge of producing a firstrate product to fill this gap for the small business market. This Central Coast company, by the name of Sherlock & Watson, has developed a total system approach to the C128 by offering packages that are not only stand alone, (a package that is totally self-contained) but fully integratable with other Sherlock products.

The first product to be released on the Aussie market is the Sherlock Open Item Debtors, or the Sherlock Super Debtors as it is commonly known.

One of the first features I found to be impressive and unique is the way in which the program takes full advantage of the extra video ram in the C128. The programmer has placed a Diary function and a Pop-up Calculator in this unused part of memory. At any point in the program simply press the help key or linefeed key and instantaneously these functions appear.

This calculator is truly a delight to use, pressing the wrong key sequence will sound an audible dull tone whilst the correct key strokes make a digital type sound. I feel this is a marvelous feature, one that will be used on a daily basis.

When the Debtors program prompts for a batch total or you are trying to deduct 10% discount from an amount, simply press the Linefeed key and instantly your calculator appears. Enter the data you wish totalled or discounted, then press Linefeed again and you are instantly returned to the exact screen position without loss of data, a totally invisible function.

Memopad

To access the Memopad function simply press the HELP key and the memopad appears. Type your note, telephone number or message and press HELP to return to the exact screen location before you entered this function. To redisplay your information press HELP key again - enter new information or re-read your recorded notes!

The Sherlock Debtors Program has taken full advantage of the ability of the C128 to be expanded to 640k by the addition of the 1750 RAM expansion or 256k by addition of the 1700 RAM expansion. If these expanders are installed when the Debtors is autobooted, the program will detect the existence of these devices and load both parts of the Debtors into memory. This function is totally automatic, and is commonly known as 'AUTO CONFIGURATION'. If RAM is not available the main Debtors program is loaded in and begins execution.

Most day to day functions are contained in the debtors main program and end of month functions and some reports are in the debtors report program. What the RAM expansions mean to you the operator, is that to load from one program to other without the RAM takes 9 seconds, but with the RAM load times are reduced to one fiftieth of a second - that's pretty damn fast - almost instantaneous.

Copier

The writers of the Sherlock Debtors have also placed on the Debtors disk a RAM copier. Depending on which RAM expansion device is used, a C128 double sided disk can be copied in either one or two passes, by copying the entire disk into external RAM and then placing on your backup disk a 100% copy of the

original using both burst read and write commands. This feature alone makes buying the RAM expansion worth while. See our April edition for the full source listing which Sherlock & Watson has supplied us for publication.

The second advantage of the RAM units is the ability of the Sherlock range of programs to 'co-exist' in external memory. That's right, a type of multi-tasking, so to speak. You can load the Debtors programs into memory and then load the Sherlock General Ledger into memory by selecting the General Ledger option from the menu. Once loaded you can remove your General Ledger program disk and in fact remove the Debtors program disk and all the software is RAM resident. The switching between programs in memory is totally transparent to the operator. I have never seen the extra RAM used this way before and I believe this to be a world first.

Features

It's difficult to detail all the features of this package, but I will attempt to explain which options may interest the average user.

The Sherlock Debtors is aimed at the home business person, or indeed any company that wishes to keep track of money owed to them by their debtors (Accounts Payable). Simply 'post' (enter) the amounts oweing to the correct account number, the date of the transaction and the program will track or record away this information.

The Sherlock Debtors can be either an Open Item Debtors or a Brought Forward Debtors. I feel some explanation is needed here for the amateurs. An Open Item System is where cash receipts can be applied by invoice number or automatically applied to the oldest balances, where as in a Brought Forward System the cash receipts are applied to the oldest outstanding GROSS amount.

In lay person terms, an Open Item System is where each individual invoice, payment etc. is recorded and printed on the statement at the end of each month so individual payments can be made to selected invoices. If an invoice is in dispute it will remain on the statement until paid out in full or credited.

A Brought Forward System only brings forward a B/Fwd balance, or in other words the details on the statement are totalled together to have a combined balance or Brought Forward Balance.

The Sherlock Debtors has both systems resident and the operator simply selects which system they wish to use at the time. Whew, that was a mouthfull and I promise not to get that technical again.

The program has built in features that not everybody may require, so it is simple manner of Y/N to enable or disable functions not needed. The program can also create its own custom disks configured differently for use with multiple company names.

Reporting facilities

An underlying strength of this package is its reporting or enquiry facilities. These reports can be directed to Screen or Printer. Some of these printed reports are an ANALYSED TRIAL BALANCE, STATEMENTS, CUSTOMER REPORTS (add, change, delete), SALES TAX REPORTS, SALES DISSECTION REPORTS, MONTH END AND YEAR PURGE REPORTS plus it has a label printer and letter writing function resident. It can create batch files (selected groups of customers) that can be used for letter writing, address labels. Another unique feature is that of an EXPORT function to output client data for use with a database or wordprocessor for mail merge or some similiar function.

The Super Debtors has a POINT OF SALE module resident for producing on preprinted invoice forms details of the transaction entered. Account number one defaults to your Cash Sales Account to expedite data entry. This part of the program can be used as a stand alone system for retail sales or for sending out invoices at the completion of the day or week for a small business. For account customers select their account number, enter details on the invoice and this information will be transferred to their statement.

The P.O.System also contains an 'Item Description' file which can be edited by the operator using a commercial wordprocessor. Simply create or edit this file to enter the names of up to 100 of the most common items you sell or the services you offer. When prompted in the P.O.S. for the description of the goods simply press decimal point (.) and a number between 1-100 and the item description will appear instantly. Saves a lot of typing if you sell similiar products on a regular basis. Apparently the Sherlock Stock & Sales System which is separate program goes one step further by entering the price in the Unit/Price field as well. (This program has not yet been released at this time, March 1989, but will probably be released in August).

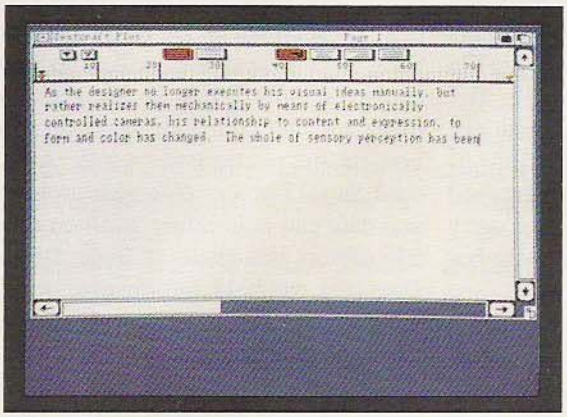
The Sales Dissection System allows the operator to further 'analyse' sales by entering an S/D number between 1-20 and the sale value will be added to the appropriate S/D account. At the end of each month a report can be printed which shows the value attributed to each department. When the report is printed you have the option of clearing these totals. You can look at these figures and compare them to year to-date figures which are also printed on this report.

Speed

The Sherlock Debtors is not only value-packed in its list of operator features and reports, but also addresses the

(continued on page 44)

We invite all Textcraft owners to take this screen test.



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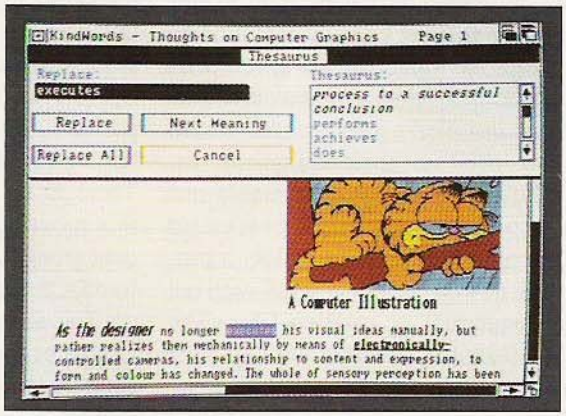

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speed problem often associated with disk -based business packages. You would have to see this package in operation to appreciate the phenomenal speed with which it accesses data. Commodore in its wisdom installed 'intelligence' inside the disk drives of their equipment. In fact the drives are programmable and have a command set of their own called the 'U' command set. They allow a programmer to write and read data with out using sequential or relative files. The most popular file structure used on most computers.

These file structures are efficient for most day to day data recording but are slow and tedious for fast data access. Due to the nature of a sequential file you would have to read the file, in total to find the matching data, and a relative file is also slow due to the DOS having read the directory track for the side sectors to where the data is recorded. This time delay will vary depending on which side of disk you are reading data at the time. There is a very efficient way called 'u1 and u2' BLOCKREAD and BLOCKWRITE. The Super Debtors allocates data to blocks on the disk as required. As a customer grows, more blocks will be allocated to store transactional information. The maximum details you can store on an individual debtor is 492. In other words 20 pages of statements for one debtor.

When at the end of each month a 'PURGE' is performed the 'CLEARED' details will be removed from the debtor's statement and these allocated blocks will be returned to DOS for allocation to another debtor if required. This is a very effecient method of storing data as debtors whose accounts have no details recorded against them only require one block on the disk, this records the NAME, ADDRESSES, POSTCODE, PHONE etc. and 90, 60, 30 and Current Balances.

When the Debtors Program or Debtors Data Disk is first loaded it reads the INDEXFILE which contains the pointers to the data on the disk. After this file has been loaded the program can directly position itself to Debtor DATA with-out having to rely on the DOS to find it. There is no faster way to access data and this programming technique is a carry over from main frame programming before DOS became so popular.

The Super Debtors contains all the interfaces for input of data directly to the soon to be released Sherlock General Ledger. A customer using the Debtors as stand-alone program could at a latter stage buy the General Ledger, and enable the G/Ledger option in the Debtors and full intergration would be possible. As part of the normal 'UPDATE' in the Debtors, simply insert the General Ledger Data Disk when prompted and the G/Ledger will be updated also. When this has been achieved, insert the Debtors disk and you are back to using the debtors as per normal.

Conclusion

In summary I found the Sherlock Super Debtors easy and simple to use, flawless in operation, amazingly fast, simply to use and very reasonably priced at $199.00 plus $8.50 postage and packing. The program comes packed with a work disk capable of only creating 20 debtors and a very well documented 72 page manual which guides the novice through customer creation to explaining what an 'UPDATE' and a 'PURGE' is. The disk supplied can be used as a training disk before your SYSTEM disk is sent to you after the registration card is returned. It is recommended that you create a few customers and use all the options available in the program.

The registration card requires your company name or the trading name you wish printed on your statements. The Sherlock Super Debtors is not copy protected, but the trading name of the company is encrypted on the SYSTEM disk. Each data disk created will contain this encrypted information. At any time the user can alter addresses or phone numbers etc. but not the trade name. A standard Super Debtors disk with programs and data can hold information on about 275 debtors and details. A Super Debtors Data Disk can hold information on 500 debtors and details. (there is no limit to the amount of data disks in use).

The current version has been running in the field for twelve months as a stand alone package until the Sherlock General Ledger was completed. It is currently undergoing field testing and final documentation. The total packages when complete will be the Sherlock Super Debtors, the Sherlock Super Creditors, the Sherlock General Ledger, the Sherlock Stock & Sales System and the Sherlock Fuel Invoicing Module.

Lastly one of most important features is that the stationary for statements is the same as the M64 system. So customers upgrading to the Sherlock Super Debtors can continue with the same stationery.

The statements are available from your nearest REDIFORM distributor boxed in lots of 1000 x (R103/HAR STATEMENTS) or from your MICROFORM distributor Re-order No.(2/9771). The Point of Sale invoices are available from MICROFORM Reorder No.(2/9530).

For further information call (043) 244-929. RRP $199.00 plus $8.50 postage and packing. Send to:

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The Sherlock Super Creditors System will be reviewed in our May issue. ■

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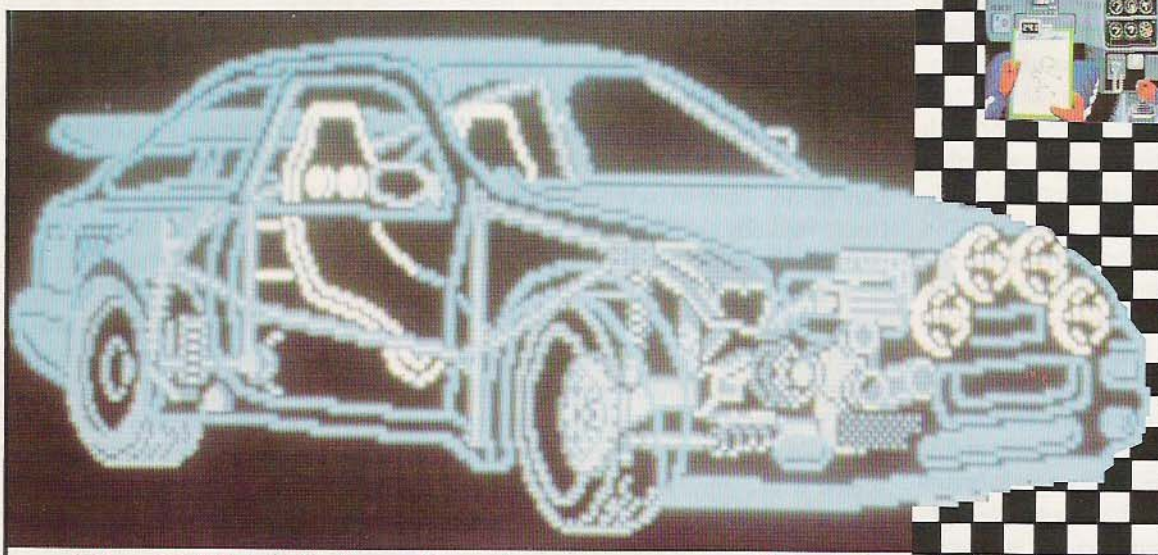

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TextEd V3.0

by Eric Holroyd

Here's a full-blown professional text editor which I found quite easy to learn and use. It's an all-Australian product and comes nicely packaged with a single non copy-protected disk (so it's easy to install it on a hard drive if you have one), a comprehensive manual and a cheatsheet/overlay showing the most-used commands.

The main uses for a text editor such as this one would be in program writing and making general text files such as instruction or "doc" files. *TextEd* is not really meant to be a word processor yet I've found it very handy to use as one for making doc files, as it has many features I like in good word processing software.

It has an "insert" mode for example, whereby the text opens up to let you type in the middle of a sentence, and in this mode the DEL key performs a "gobble" delete at the cursor. Simply hold down DEL until the text you want deleted has been gobbled up then start retyping.

Before using *TextEd* for the first time you're urged to make a working copy and do the necessary program "installation" using that disk. There are several text files on the *TextEd* disk, all with a nice icon which "calls" *TextEd* to display the text on screen and at the same time get you straight into the working environment.

When a file is saved from *TextEd* it's automatically provided with one of these icons and I particularly liked this feature. Of course, if you're making a doc-file on a PD disk for general distribution you'd have to change the icon's instruction to call another text file displayer such as "Less" by using the "info" command on your WorkBench.

TextEd must not be included on such a doc-file as it as a copyrighted program. As I say, I found it very handy to use in this way and I can see it getting a lot of use in my future sessions.

Data entry modes

I've already mentioned Insert Mode and there are other Data Entry Modes too, such as XCH which simply lets you overstrike (or exchange) existing text. The F1 key toggles between this and INSert mode. Then there's STI, or STatic Insert whereby the cursor stays still and characters are inserted to the right of it.

For editing vertically (handy if you're doing columnar work) there's VRT or VeRTical insert where the cursor moves up and down. Another useful mode is SPX or SPecial eXchange in which you may overwrite characters already on screen with control or other special characters.

After a character has been overwritten the text cursor moves one space right. SPI, or SPecial Insert, is similar except all the characters move one space right when you insert a control or special character. These control characters include Return, Escape, Backspace, Tab, Del, and any character pressed in conjunction with the CTRL or ALT keys.

As I've already mentioned, the DEL key's function in INS mode and in XCH mode - it replaces the character under the cursor with a space.

The backspace key in INS mode performs a "drag" delete whilst in XCH it moves left, replacing characters with spaces and in VRT mode it moves up doing the same thing.

I won't go through all the functions of the various keys in the various modes (it would take the whole magazine to fully explain everything and that's not the idea of a review anyway) but I've outlined those ones to illustrate that I think the programmers have done a good job in working it all out and making it user-friendly as well as functional.

Moving around

Moving around the screen is a breeze with the arrow keys and various key combinations. For instance the Up-arrow moves the cursor up one line, combined with Shift it moves up a half-page. Combined with ALT it moves up a full page, with SHIFT/ALT it goes to the top of the document, and with CTRL it goes to the start of a marked block.

The other arrow keys have a similar range of functions, as do the Function keys themselves. F-Keys cover named functions from 1 to 60 with the first ten being the normal F-keys. 11 - 20 are in conjunction with SHIFT, 21 - 30 in conjunction with ALT, 31 - 40 with SHIFT/ALT, 41 - 50 with CTRL and 51 - 60 with CTRL/ALT.

These last ten are programmable to your own requirements with a program on the disk known as PFKeys so that you may customize your *TextEd* to your own needs.

A wide variety of custom parameters may also be saved to your disk so that your printer type, screen colours etc come up right every session and the SetScreenColor section is a nice little program in its own right too. Printing of your *TextEd* file is available with a range of options such as page and line numbering, time and date tags at the start and end of your printout, printer reset after printing, and you may print all or any section of your file.

Block functions are many and varied

too. Cut, copy, append, move, sort, print etc as well as import and export of blocks of text. Overlaying, duplicating and aligning of text blocks are available too, and all done with the F-Keys.

Search

Searching and replacing of text is well-covered with several options here. You may set the direction of the search, either forward or back, as well as setting the case to either Sensitive or Insensitive. There's an AUTOREPLACE feature too, on F-Key 16, which finds and replaces automatically all occurrences of a search string with a replace string.

If you've used this and replaced too many strings and want to put one or two back to the original string you can use EXCHANGESTRINGS to undo an AUTOREPLACE. This could be very useful if you thought you were autoreplacing a marked block and had forgotten to mark the block for instance.

The text buffer may be modified in umpteen different ways too. Case may be changed with FLIPCASE, a pair of characters may be changed with SWAPCHARS (the character beneath the cursor is exchanged with that to it's right) and lines may be joined or duplicated with JOINLINES and DUPELINES.

Several different types of delete and undo may be performed via the function keys as well, and I couldn't think of anything that had been left out or that I would have liked to have seen included. There's certainly plenty of meat here for a hard core user to get his/her teeth into and I'll leave it up to you to find out the rest for yourself.

Personally I think this is a very good piece of software which deserves a place in every serious Amiga user's disk box. It's certainly found a place in mine. ■

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About Slowmemlast/Ram On Off & Nofastmem

by Tim Strachan

THIS IS a brief and simplified explanation of why these programs exist and what the memory situation is on the various Amigas (as far as I can find out!).

The A1000 situation 512K of internal "chip memory", accessible by both the CPU (Central Processing Unit, ie the 68000) and the Custom Chip Set (the 3 co-processors, Paula, Agnes & Denise); 8 megabytes of "fast" or "expansion" memory could then be added which is accessible only by the 68000. On power-up some of the chip memory would be taken for system functions, and the rest put into a "free memory list" for other functions. Then expansion memory would be looked for, and if found, linked into the memory free list as fast memory. The only problem with all this is that precious chip memory is used where fast memory would do just as well. Chip memory is precious because it is required for the functions of the custom chip set, such as Intuition screens, graphics, etc, and can soon start running low.

THE A500/2000 SITUATION Due to the problem above, "slow memory" was added, being 512K more RAM (built into the A2000 and available as the A501 Ram/clock module on the A500), which maps in at the top of memory. This memory is checked before chip memory at power-up, and if found is used for the "supervisor stack" and other system functions, thus freeing up some chip memory. The remaining slow memory is added to the free memory list, and henceforward treated like normal expansion or fast memory. The only problem is that "slow memory" isn't real fast, because it is subject to "cycle stealing" by the Custom Chip Set while, for example, high resolution is being handled, even though this memory can't be accessed by the Custom chips. The upshot is that programs which use high resolution and/or lots of colours will run more slowly in 1-meg 500s and 2000s than in a system with real fast memory.

So, NOFASTMEM (or RAM ON/OFF) solves the problem of some early programs which assumed that all available memory was chip memory (and consequently screwed up when there was any extra memory) by allocating any non-chip memory, ie effectively removing it. However, check out the NOVIRUS utility on Megadisc by Nic Wilson, which incorporates two other utilities called SYS and NOTSYS for adding or removing memory via a modification to the Boot Blocks of ANY disk.

If you've got slow memory, it will tend to be used before real fast memory - so run the program SLOWMEMLAST or FASTMEMFIRST (preferably in your startup-sequence BEFORE "BINDDRIV-ERS") and it will be used after real fast memory - see also the note at the end of the "FastFileSystem" article in this issue. ■

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The new Fast File System

by Tim Strachan

IF YOU have any hard disk on any Amiga, it's worth using the new FastFileSystem (FFS from now on), mainly for speed. Any hard disk with a controller which has the two specified "AutoBoot ROMs" will be able to autoboot off the hard disk, without a boot disk at all - Commodore's new A2090A hard disk/SCSI controller card for the A2000 is such a beast, and other third party manufacturers have made or will make similar modifications. Note that this will only be possible if you are running the 1.3 Kickstart. The FFS itself however will work fine on 1.2 Kickstart without the autoboot facility.

Some technical info

(Quoted more or less from a technical doc)

Fast Filing System was based on the original file system provided by AmigaDOS. This resulted in a high level of compatibility that allowed application programs and the standard DOS commands to function under FFS without any changes required. FFS was completely re-written in assembler and many of the algorithms were completely revised to provide much faster response for internal processing. FFS now spends MUCH more time waiting for I/O or DOS packets instead of spending all its time figuring out what to do. For a task that runs at a high priority on a multi-tasking machine this has real benefits.

Although there have been many minor re-arrangements of the disk format, the only major incompatibility with the old filesystem concerns the data blocks. Under the old system, data blocks consisted of 24 bytes of header information followed by 488 bytes of user data. This means the old system has no option but to read data from the drive one block at a time. Since most hard drives use DMA to transfer data from the disk to memory, this is really inefficient and does not use the hardware to its full potential.

FFS stores nothing but data in the data blocks. When possible, data blocks are allocated consecutively so large reads and writes can be performed in one operation. Even though the old filesystem uses this allocation technique, most gains are lost because it must make separate I/O requests for each block. In addition to this, the old filesystem uses cache buffers for both data and header blocks, while FFS only caches headers and partial data block transfers. Large reads and writes that are multiples of 512 and positioned at an even address are transferred directly to or from the user buffer. This is possible because there is no extraneous information to be stripped from the data.

It is worth noting that a side effect of the new data format is a 4.9% increase in the amount of data that can be stored on a given disk, amounting to about 50K per Megabyte extra.

Backwards software compatibility is good - only some old DiskSalvage programs would have problems, but DISKDOCTOR on 1.3 and the new DISKSALV program by Dave Haynie in the public domain recognise the new format.

How to install FFS on your hard disk

Before you start playing around with your hard drive, make sure you've backed it up! No-one with a hard disk needs to be told this, I guess, but it's always worth repeating (speaking from experience, sob!).

It's much easier if you can keep any partitions as they are. The A2090 must have the first partition as a normal file system device, but further partitions may be FFS. Other drives, such as those that use the X1000 SCSI interface by Expansion Systems, can be totally given over to FFS. You'll have to add three lines to your DEVS/MOUNTLIST entries for each drive or partition. These are:

```
FileSystem = L:FastFileSystem
GlobVec = 1
DosType =0x444f5301
```

Below are the entries for two hard disks, DH0: being a 10-Megabyte drive (HIGHCYL 305) and a 20-Megabyte drive (HIGHCYL 611).

```
#
dh0:
Device = X1000.device
Unit   = 1
Flags  = 0
Surfaces  = 4
BlocksPerTrack = 17
Reserved = 2
Interleave = 0
LowCyl = 0  ;
HighCyl = 305
Buffers = 20
StackSize = 4000
GlobVec = 1
FileSystem = L:FastFileSystem
DosType =0x444f5301

#
dh1:
Device = X1000.device
Unit   = 2
Flags  = 0
Surfaces  = 4
BlocksPerTrack = 17
Reserved = 2
Interleave = 0
LowCyl = 0  ;
HighCyl = 611
Buffers = 20
StackSize = 4000
GlobVec = 1
FileSystem = L:FastFileSystem
```

DosType =0x444f5301
#

Note the HASH (#) mark which separates every entry in a Mountlist. Now, you need to FORMAT your drive(s) to suit the FFS -

FORMAT DRIVE DH0: NAME DH0 FFS

Note also the absence of a colon after the second DH0, since we're only giving it a name (which could be anything), not referring to a physical device. Having formatted your hard disk, it is a matter then of backing up to it, after editing your Startup-sequence to MOUNT DH0: (after the BINDDRIVERS command) or whatever is the name of your drive.

RAD and FFS

You cannot boot from the Recoverable Ram Disk if you're using the FastFileSystem, although you can use it as a RRD, provided you change the BOOTPRI entry in the ramdrive.device (RAD:) mountlist to -129, which tells the system that the RAD: device is not bootable. However, you could set up a small partition on your hard disk which is not FFS, and set up your system so that you reboot from RAD:, transferring control to the first non-FFS partition.

A2000 and fast and slow Ram

There is a way round the problem the A2000 seems to have with "slow memory", ie, the second half-megabyte of Ram, which is very slow, even with a hard disk. The solution is to set up your startup-sequence with the following commands in the order shown:

Setpatch Slowmemlast or Fastmemfirst
Binddrivers

The two last lines are the important ones, making your system use fast Ram (ie expansion ram) before the slow ram or the chip ram. ■

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All the programs included come with printed documentation. There are no READ.ME files to look for, just hard copy ready to file away, and refer to when you need it. Amiga-Live!'s programs disk is a good way to collect quality software quickly, and cheaply, if you prefer not to sift through the many Fish Disks looking for those programs that interest you. On our disk, we only put the cream of the rest.

Features of Issue Two - *Summer Fun Edition*

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- **Backgammon** - Strategy one player versus computer game.
- **Moose** - Mac owners eat your heart out! This comical little character is now at home on the Amiga.
- **Amibug** - Watch him walk across the screen just when you least expect it.
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- **Memo Pad** - A reminder program to keep track of your appointments.
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128 Corner - *geoPublish Part 2*

by Harry Waterworth

In last month's edition, we looked at desktop publishing in general, and had an introductory look at Berkeley's program *geoPublish*. This month, we will run through the procedures involved in laying out and printing a typical *geoPublish* newslatter.

It's a good idea to sketch out with pen and paper a rough layout of your proposed newsletter. This step will make the overall task much easier and help you to get better looking and more professional results. The small amount of time involved here will prove to be time well spent indeed.

The start - master pages

Having decided on the basic layout you desire, the first thing to do is to enter master page mode. Assuming you are preparing a newsletter that you will be printing regularly, you use master page to lay out the text, borders etc that you will use with each and every edition. This is then saved to the master page library, and is available for you each time you wish to create your newsletter. Sure beats the heck out of having to start from square one every time you wish to get out a copy of your newsletter.

In the example newsletter shown see page 54), the outside border, the "128 Corner" headline banners, the "Australian Commodore and Amiga Review" side banner and the dividing borders for the headline and side banners would all be saved to the master page layout library.

Headline banners and large subheadings are done using the Text option which is available in both the master pages mode as well as the page graphics mode. After selecting the text option, you go to the attributes box and there you set the style of print you desire.

Once into the attributes box, the choices available are almost endless. You can choose font sizes ranging from 4 point to 192 point; bold or plain text, outlined, underlined or italicised or all of these features combined. And hey! it's all done with the click of the mouse button. No keyboard commands or other complicated procedures involved, so with all you budding publishers out there, I guess it's time for the Rupert Murdochs of this world to start worrying.

I selected Harmon font for both the headline (60 point bold) and sideline (20 point bold) banners, and the text was positioned using the toolbox in master page mode. Once you have dropped your text into the document, you use the attributes box to position it in the exact location required by the use of the pointing tool. Correct spacing is obtained by changing the font size till it fits just right. Who said editors have a hard life; if they do I guess they just don't own a desktop publisher.

Master pages is also the section in which you set up the guidelines that will assist you place your text in the columns later on in the proceedings. Although the guidelines appear "on screen" they do not appear in your final printout. Having set the guidelines for the two text columns in my newsletter, it was time to go to the next part of the operation:-

Page layout

The three articles that appear in the example layout are simply three separate *geoWrite* files that I prepared for use in this demo.

Placing the article in the column is done by way of the page layout toolbox, which is different from the toolbox that appears in both master pages and page graphics. Using the "Open Region" tool, click on the top left corner of the column in which the text is to be placed, then move the pointer to the diagonal corner to define the region.

Next step is to click on the "text placement" tool, and you are then presented with a dialog box which shows all of the *geoWrite* files on the current disk. Open the first file you wish to use, which in my newsletter was "Geofile 128", then move the pointer to the region just defined, and click once on the mouse, and your text is placed in the region. On screen, it appears as a box full of ripples, and the last step is to convert it to *geoPublish* format. This is done by simply clicking on the "Show" tool and the ripples will be replaced by diagonal lines.

Don't worry if the lines don't go right down to the bottom of the defined region. You can either change the point size of the text to fill up the whole region, or by use of the "editor" mode, you can add a bit more text until you have all of the region used.

Graphics

Page layout is also where you drop in the graphics that you have created in *geoPaint*. In my newsletter, you will no doubt have been super-impressed by the fantastic drawing of a 128D and a 1901 monitor (you did recognise them, didn't you?).

The same procedures as described previously for importing text are used to import Bitmap graphics. The only difference is that you select the "bitmap placement" tool instead of the "text placement" tool. The dialogue box for graphics gives you the options to centre your graphic in the region, scale the

graphic to fit the area defined or stretch AND scale the object. Like I said earlier, an editor's life has now become a cinch.

As is the case with master pages, you can save your page layout design (with your text columns and boxes for graphics defined) to the page layout library for use in future editions. Only the region coordinates are saved to the library: bitmap graphics cannot be saved for this purpose.

Having finished importing your text and graphics, the last step in completing the document is to enter your subheadings and border designs and to create any other 'original' graphics you may need to complete your newsletter. These steps are all done in:-

Page graphics

In page graphics, you have the same toolbox available as in Master Page mode. Note, however, that you cannot import text in this mode. Importing must be done in page layout mode.

In my newsletter, the three subheadings for *geoFile*, *geoCalc* and *geoPaint* were all done and placed in position in page graphic mode. Use the attributes box to get the placement, fonts and size to the fashion you desire. The two boxes at the bottom of each column were also done in page graphics using the attributes box to draw the borders and background graphics etc.

Two of the more interesting tools available are the "Move to Front" and "Move to Back" options in the page graphics and master pages modes. This enables you to place a graphic or text box behind or in front of another object. Try a little bit of experimenting in this mode; some very interesting effects can be obtained.

The toolbox also allows a number of other functions, some of which are as follows: drawing connected lines, drawing single lines, creating polygons, drawing open or closed splines (a spline is a smooth curve based on a series of points defined by clicking at selected intervals with the mouse).

Squares, rectangles and circles can also be drawn, and you can fill them with different patterns, change the border thickness and so the list of options goes on.

General hints and tips

1. Try not to mix too many fonts and styles on the one page; I have done this on purpose in the example shown to illustrate the different features available. As a general rule however, this should be avoided as all you wind up with is a messy looking document that looks like you couldn't decide which way you wanted to go.

When using large fonts as in the "C128 Corner" heading, it looks better on the final result if you use a biro to fill in the small lines that appear with most dot matric printers. If you look at the letters "OR" in CORNER you will see what I mean as I left these un-touched to show the difference this makes if you intend having your document photocopied or printed.

3. Make sure you save your work to disk often. That way, if you try something that you feel hasn't worked, simply hit the "recover" box from the "File menu", and you're back to your last saved version.

4. If you are using a 128D, your text files will all be in 80 column mode, whereas the main *geoPublish* program itself runs in 40 columns. This is not a problem, as you get screen prompts as you open files to let you know when to switch your monitor.

The only trap in this area is to make sure you switch to 40 column mode in the Geos menu BEFORE you double click on the *geoPublish* icon to open it up. If you're in 80 column mode and you don't do this the program locks up and you have to start from scratch to load all your files back into the ram expander.

Well, that's about it for this month. As I said in last month's column, because of its size, *geoPublish* is not the sort of program you will master in one or two hours. However, I am sure that it is one that all Geos users will find fun to use, and one that can also be put to a lot of practical uses. See you next month. ■

(*Turn the page to see the example newsletter.*)

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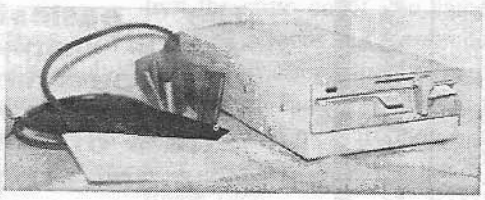

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128 CORNER

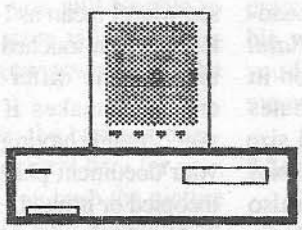
GEOS HINTS AND TIPS

AUSTRALIAN COMMODORE AND AMIGA REVIEW

GEOFILE 128

When using the search mode in Geofile, you must type EXACTLY the name of the record you wish to recall, even down to spacings, commas, full stops etc or else the search will not work. For example, if you defined the search as SMITH P W and the record had been stored as SMITH PW (no space between the initials) then your search request would fail.

The easiest way is simply to type the first few letters of the keyname required and then type the star symbol, eg:- SMI*. This would then retrieve all Smiths on file and you then flick through the records to make sure you have the right SMITH in case there are more than one on file.



COMMODORE 128D

GEOCALC 128

To get the best results when using geoCalc on the 128D, load your work disk into the ram expander before you start your session. On large spread sheets, this can result in a time saving of about 100%. At the end of the session, don't forget to save your work back to disk before you turn your computer off.

Experiment with the width of your columns to get the maximum across each page without wasting space unnecessarily. This will avoid having to paste to many pages together to fit in your entire spreadsheet.

GEOPAINT

For those users of geoPaint with a 60 dpi dot matrix printer, the following pixel measurements will give you a one inch line on your drawing screen:- Across 60 - Down 72..

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More Public Domain Software
Amicus disks

A complete list of Fish Disks up to number 146 appeared in our Amiga Annual. We now have up to number 177. A catalogue disk containing the complete listing, as well as updates on other PD disks on offer is available for $5.

Fish Disks remain $6 each. There's always someone at the end of our editorial phone-line (02) 817 0011) to answer problems with these disks or take your order.

Amicus disks, produced by a large Amiga user group in the United States, are also now available. A complete listing follows.

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Blocks Draws blocks.
Cubes Draws cubes.
Durer Draws pictures in the style of Durer.
FScape Draws fractal landscapes.
Hidden 3d drawing program with hidden line removal.
JPad Simple paint program.
Optical Draw several optical illusions.
PaintBox Simple paint program.
Shuttle Draws the Space Shuttle in wire frame.
SpaceArt Graphics demo.
Speaker Speech utility.
Sphere Draws spheres.
Spiral Draws colour spirals.
ThreeDee 3d function plots.
Topography Artificial topography.
Wheels draws circle graphics.
Xenos draws fractal planet landscapes.

ABasiC Programs : Tools
AddressBook simple database program for addresses.
CardFile simple card file database program.
Demo multiwindow demo.
KeyCodes shows keycodes for a key you press.
Menu run many ABasiC programs from a menu.
MoreColours way to get more colours on the screen at once, using aliasing.
Shapes simple colour shape designer.
Speakit speech and narrator demo.

ABasiC Programs : Games
BrickOut classic computer brick wall game.
Othello board game, also known as 'go'.
Saucer simple shoot-'em-up game.
Spelling simple talking spelling game.
ToyBox selectable graphics demo.

ABasiC Programs : Sounds
Entertainer plays that tune.
HAL9000 pretends its a real computer.
Police simple police siren sound.
SugarPlum plays 'The Dance of the Sugar Plum Fairies'.

C Programs :
ATerm simple terminal program.
cc aid to compiling with Lattice C.
decvnt opposite of CONVERT for cross developers.
Dotty source code to the 'dotty' window demo.
echox UNIX style filename expansion.
fasterfp explains use of fast floating point math.
FixDate fixes future dates on all files on a disk.
freedraw simple workbench drawing program.
GfxMem graphic memory usage indicator.
Grep searches for a given string in a file, with documentation.
ham shows off the hold-and-modify method of colour generation.
IBM2Amiga fast parallel transfers between an IBM and an Amiga.
mandel mandelbrot set program.
moire patterned graphic demo.
objfix makes Lattice C object file symbols visible to Wack.
quick quicksort strings routine.
raw example sample window I/O.
setlace turns on interlace mode.
sparks qix-type graphic demo.

Other executable programs :
speechtoy speech demonstration.
whichfont displays all available fonts.

Texts :
68020 describes 68020 speedup board from CSA.
aliases explains use of the ASSIGN command.
bugs known bug list in Lattice C 3.02.
CLICard reference card for AmigaDOS CLI.
CLICommands guide to using the CLI.
Commands shorter guide to AmigaDOS CLI commands.
EdCommands guide to the ED editor.
Filenames AmigaDOS filename wildcard pattern matching.
HalfBright explains rare graphics chips that can do more colours.
ModemPins description of the serial port pinout.
RAMDisks tips on setting up your RAM: disk.
ROMWack tips on using ROMWack.
Sounds explanation of Instrument demo sound file format.
Speed refutation of Amiga's CPU and custom chip speed.
WackCmds tips on using Wack.

AMICUS DISK #2

C Programs :
alib AmigaDOS object library manager.
ar text file archive program.
fixobj auto-chops executable files.
shell simple CLI shell.
sq,usq file compression programs.
YachtC a familiar game.
Make a simple 'make' programming utility.
Emacs an early version of the Amiga text editor.

Assembler programs :
bsearch.asm binary search code.
qsort.asm UNIX compatible qsort() function, source and C test program.
setimp.asm setimp() code for Lattice 3.02.
SVprintf UNIX system V compatible printf().
trees.o UNIX compatible tree() function.

John Draper Amiga Tutorials :
Animate describes animation algorithms.
Gadgets tutorial on gadgets.
Menus learn about intuition menus.

AMICUS DISK #3

C Programs :
Xref a C cross reference generator.
6bitcolor extra-half-bright gfx demo.
chop chop (truncate) files down to size.
cleanup removes strange characters from text files.
CR2LF converts carriage returns to line feeds in Amiga files.
Error adds compile errors to a C file.
Hello window example from the RKM.
Kermit generic Kermit implementation, flakey, no terminal mode.
Scales sound demo plays scales.
SkewB Rubik cube demo in hi-res colors.

AmigaBasic Programs :
Automata cellular automata simulation.
CrazyEights card game.
Graph function graphing programs.
WitchingHour a game.

ABasiC Programs :
Casino games of poker, blackjack, dice and craps.
Gomuko also known as 'Othello'.
Sabotage sort of an adventure game.

Executable Programs :
Disassem a 68000 disassembler.
DpSlide shows a given set of IFF pictures.
Arrange a text formatting program.

Assembler Programs :
ArgoTerm terminal program with speech and Xmodem.

AMICUS DISK #4

Files from the original Amiga Technical BBS.
Note that some of these files are old, and refer to older versions of the operating system. These file came from the Sun system that served as Amiga technical support HQ for most of 1985. These files do not carry a warranty, and are for educational purposes only. Of course, that's not to say that they don't work.

Complete and nearly up to date C source for 'image-ed', an early version of the Icon Editor. This is a little flaky, but compiles and runs.

An intuition demo, in full C source, including files: demomenu.c, demomenu2.c, demoreq.c, getascii.c, idemo.c, idemo.guide, idemo.make, idemoall.h, nodos.c, and txwrite.c.

addmem.c add external memory to the system.
bobtest.c example of BOB use.
consoleIO.c console IO example.
creaport.c create and delete ports.
creastdi.c create standard I/O requests.
creatask.c creating task examples.
diskio.c example of track read and write.
dotty.c source to the 'dotty window' demo.
dualplay.c dual playfield example.
flood.c flood fill example.
freemap.c old version of 'freemap'.
geltools.c tools for VSprites and BOBs.
gfxmem.c graphic memory usage indicator.

hello.c window example from RKM.
inputdev.c adding an input handler to the input stream.
joystik.c reading the joystick.
keybd.c direct keyboard reading.
layertes.c layers example.
mouseport.c test mouse port.
ownlib.c,
ownlib.asm example of making your own library with Lattice.
paratest.c tests parallel port commands.
seritest.c tests serial port commands.
serisamp.c example of serial port use.
prinintr.c sample printer interface code.
prtbase.h printer device definitions.
regintes.c region test program.
setlace.c source to interlace on/off program.
setparallel.c set the attributes of the parallel port.
setserial.c set the attributes (parity, data bits) of the serial port.
singplay.c single playfield example.
speechtoy.c source to narrator and phonetics demo.
timedely.c simple timer demo.
timer.c exec support timer functions.
timrstuf.c more exec support timer functions.
whichfont.c loads and displays all available system fonts.

process.i and prtbase.i assembler include files.

autoqstr.txt warnings of deadlocks with autorequestors.
consoleIO.txt copy of the RKM console I/O chapter.
diskfont.txt warning of disk fontloading bug.
fullfunc.txt list of #defines, macros, functions.
inputdev.txt preliminary copy of the input device chapter.

License information on Workbench distribution license. Printer pre-release copy of the chapter on printer drivers, from RKM.
v11fd.txt 'diff' of .fd file changes from version 1.0 to 1.1. v28v1.diff 'diff' of include file changes from version 28 to 1.0

AMICUS DISK #5

Files from the Amiga Link / Amiga Information Network.

Note that some of these files are old, and refer to older versions of the operating system. These files are from Amiga Link. For a time, Commodore supported Amiga Link, aka AIN, for online developer technical support, It was only up and running for several weeks. These files do not carry any warranty, and are for educational purposes only. Of course, that's not to say they don't work.

menudemo.o a demo of Intuition menus in C source.
whereis.c find a file searching all subdirectories.
bobtest.c BOB programming example.
sweep.c sound synthesis example.

Assembler files :
mydev.asm sample device driver.
mylib.asm sample library example.
mylib.i
mydev.i
asmsupp.i
macros.i assembler include files.

Texts :
amigatricks tips on CLI commands.
extdisk external disk specification.
gameport game port spec.
parallel parallel port spec.
serial serial port spec.
v1.1update list of new features in version 1.1.
v1.1h.txt 'diff' of include file changes from version 1.0 to 1.1.

Files for building your own printer drivers, including dospecial.c, epsondata.c, init.asm, printer.c, printer.link, printertag.asm, render.c, and wait.asm.

This disk also contains a number of files describing the IFF specification. These are not the latest and greatest files, but remain here for historical purposes. They include text files and C source examples. The latest IFF spec is elsewhere in this library.

AMICUS DISK #6

IFF Pictures

This disk includes the DPSlide program, which can view a given series of IFF pictures, and the showilbm program which can view pictures one at a time. Saveilbm will save the topmost screen as an IFF file (though not exactly the same as the original screen - it is half height interlaced).
The pictures include a screen from ArcticFox, a Degas dancer, the guys at Electronic Arts, a gorilla, horses, King Tut, a lighthouse, a screen from Marble Madness, the Bugs Bunny Martian, a still from an old movie, the Dire Straits moving company, a screen from Pinball Construction Set, a TV newscaster, the PaintCan, a world map, a Porsche, a space shuttle mission patch, a

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tyrannosaurus rex, a planet view, a VISA card, a ten speed bicycle and some others.

AMICUS DISK #7

DigiView HAM demo picture disk.

This disk has pictures from the DigiView hold-and-modify video digitizer. It includes the ladies with pencils and lollypops, the young girl, the bulldozer, the horse and buggy, a computer cable, the dictionary page, the robot and Robert. This includes a program to view each picture separately and all together as separate, slidable screens.

[Note - the disk must be in df0: to use the 'digiview' icon, use F1 - F6 to switch between the pictures. Unfortunately there doesn't seem to be any way out except CTRL-A-A. - only the bulldozer, dictionary and Robert are IFF.]

AMICUS DISK #8

C Programs :
browse view text files on a disk, using menus. crunch removes comments and white space from C files.
iconexec EXECUTE a file of CLI commands from Workbench.
PDScreenDump dumps rastport of highest screen to printer.
setalternate sets a second image for an icon when clicked once.
setwindow makes windows for a CLI program to run under Workbench.
smallclock a small digital clock in a window menu bar.
scrimper screen printer, from the 4th Amazing Computing.

AmigaBasic Programs :
[Note - many of these programs are present on AMICUS DISK #1 as ABasiC programs. Several of these were converted to AmigaBasic, and are included here.]
addressbook a simple address book database.
ball draws a ball.
cload program to convert Compuserve hex files to binary.
clue the game, intuition driven.
colorart art drawing program.
deluxedraw the drawing program from the 3rd Amazing Computing.
eliza conversational computer psychologist.
othello the game, also known as 'go'.
ratmaze 3D ratmaze game.
ROR boggling graphics demo.
shuttle draws 3D pictures of the space shuttle.
spelling simple spelling program.
YoYo wierd zero-gravity yoyo demo, tracks yoyo to the mouse.

Executable Programs :
3DCube modula-2 demo of a rotating cube.
alticon sets a second icon image, displayed when the icon is clicked.
AmigaSpell a slow but simple spelling checker.
arc the ARC file compression program, a must for file transmission by modem.
bertrand graphics demo.
disksalvage program to rescue trashed disks.
kwikcopy a quick but nasty disk copy program, ignores errors.
LibDir lists hunks in an object file.
savelLBM saves any screen as an IFF picture.
screendump shareware screen dump program.
starterm version 2.0, terminal program with Xmodem.

Texts :
LatticeMain tips on fixing main.c in Lattice.
GDiskDrive make your own 5 inch disk drive.
GuruMed explains the Guru numbers.
Lat3.03bugs bug list of Lattice C v3.03.
MForgeRev user's view of MicroForge HD.

.BMAP files :
These are the necessary links between AmigaBasic and the system libraries. To take advantage of the Amiga's capabilities in Basic you need these files. BMAPS are included for 'clist', 'console', 'diskfont', 'exec', 'icon', 'intuition', 'layers', 'mathffp', 'mathieeedoubas', 'mathieeesingbas', 'mathtrans', 'potgo', 'timer' and 'translator'.

AMICUS DISK #9

AmigaBasic Programs :
FlightSim simple flight simulator program.
HuePalette explains Hue, Saturation and Intensity.
Requester example of requesters from AmigaBasic.
Scrolldemo demonstrates scrolling capabilities.
Synthesizer sound program.
Worldmap draws a map of the world.

Executable Programs :
Boing! latest boing! demo with selectable speed.
Brush2C converts an IFF brush to C data instructions, initialization code.
Brush2Icon converts IFF brush to an icon.
Dazzle graphics demo, tracks to mouse.
DeciGEL assembler program for stopping 68010 errors.
Klock menu-bar clock and data display.
life the game of life.
TimeSet intuit
ion-based way to set the date and time.
EMEmacs another Emacs, more oriented to word processing. MyCLI a CLI shell, works without the Workbench.

Texts :
FnctnKeys read function keys from AmigaBasic.
HackerSln explains how to win the game 'hacker'.
Ist68010 guide to installing a 68010 in your Amiga.
PrinterTip how to print files in the background.
StartupTip tips for setting up your startup-sequence.
XfrmrReview list of transformer programs that work.

Printer Drivers :
Printer drivers for -
Canon PJ-1080A
CItoh Prowriter
Epson an improved version to that on workbench 1.1.
Epson LQ800
Gemini Star-10
NEC 8025A
Okidata ML-92
Panasonic KX-P10xx family
Smith-Corona D300
And documentation describing the installation process.

AMICUS DISK #10

Instrument sound demos :
This is an icon driven demo, circulated by many dealers. It includes the sounds of an acoustic guitar, an alarm, a banjo, a bass guitar, a boink, a calliope, a car horn, claves, water drip, electric guitar, a flute, a harp arpeggio, a kickdrum, a marimba, a organ minor chord, people talking, pigs, a pipe organ, a Rhodes piano, a saxophone, a sitar, a snare drum, a steel drum, bells, a vibrophone, a violin, a wailing guitar, a horse whinny, and a whistle.

AMICUS DISK #11

C Programs :
dirutil intuition-based CLI replacement manager.
cpri shows and adjusts priority of CLI processes.
ps shows info on CLI processes.
vidtex displays Compuserve RLE pictures.

AmigaBasic Programs :
PointerEd pointer and sprite editor program.
optimize optimization example from Amazing Computing article.
calendar large, animated calendar, diary and date book program.
amortize loan amortizations.
brushtoBOB converts small IFF brushes to AmigaBasic BOB objects.
grids draw and display waveforms.
hilbert draws Hilbert curves.
madlib mad lib story generator.
mailtalk talking mailing list program.
meadows3D 3D graphics program from Amazing Computing article.
mousetrack mouse tracking example in hi-res mode. slot slot machine game.
tictactoe the game.
switch pachinko-like game.
weird make starnge sounds.

Executable Programs :
cp UNIX-like copy program.
cls screen clear.
diff UNIX-like stream editor uses 'diff' output to fix files.
pm chart recorder performance indicator.

Assembler Programs :
cls screen clear and CLI arguments example.

Modula-2 Programs :
trails moving-worm graphics demo.
caseconvert converts Modula-2 keywords to uppercase.

Forth Programs :
breshenhan circle algorith example.

Analyze :
Twelve templates for the spreadsheet Analyze.

There are four programs here that read Commodore 64 picture files. They can translate Koala Pad, Doodle, Print Shop and News Room graphics to IFF format. Getting the files from your C-64 to the Amiga is the hard part.

AMICUS DISK #12

Executable Programs :
blink 'alink' compatible linker, but faster. clean spins the disk for disk cleaners.
epsonset sends Epson settings to PAR: from menu.
showbig view hi-res pics in lo-res superbitmap.
speaktime tell the time.
undelete undeletes a file.
cnvapldhm converts Aplle][low, medium and hi-res pictures to IFF.
menued menu editor produces C code for menus.
quick quick disk-to-disk nibble copier.
quickEA copies Electronic Arts disks, removes protection.
txed 1.3 demo of text editor from Microsmiths.

C Programs :
spin3 rotating blocks graphics demo.
popCLI start a new CLI at the press of a button, like Sidekick.
vsprite VSprite example code from Commodore.

Assembler Programs :
star10 makes star fields like Star Trek intro.

Amigabasic Programs :
AmigaBBS a shareware BBS.

Pictures :
MountMandelbrot 3D view of mandelbrot set.
StarDestroyer hi-res Star Wars starship.
Robot robot arm grabbing a cylinder.

Don't miss out on these great bargains!

Australian Commodore Review Disk Mags Nos 1 to 12

Disk Magazine One — $10

Forest Raiders - Full machine code shoot 'em up
Machine code paint, border, input and flash routines
Nice Lister - for readable listings on non-Commodore printers.
Recover II - for recovering deleted files,
and a catalog program - for getting a disk directory without losing your program ***And More...***

Disk Magazine Two — $10

Programs demonstrating 3D graphic plots
A terminal program called Teleport
A tutorial on bits and bytes
Character editor - for designing your own custom alphabets and graphics & A full demonstration of Electronic Card File

And More...

Disk Magazine Three — $10

Programs:
Hangman, Labyrinth, Calendar, Finance, Typing Practice, Roadblock, Bird Invaders

Feature: Constructabrix - education and graphic construction program for younger users ***And More...***

Disk Magazine Four — $10

Featuring:
Graphic Workshop _ a complete design system for sprites, graphics, and character sets - with tutorials
Also: Typing Tutor - a complete typing program
Works on errors, counts your speed ***And More...***

Disk Magazine Five — $10

Utilities for using Newsroom on an MPS 802 plus printing disk cover with directories, writing signs, printing Doodle and Printshop pictures and more all on the MPS 802!

A demonstration of games in the future

And More...

Disk Magazine Six : — $12

Games: Bert the Bug
Hangman
Demos: Amiga Pharoah
Space Harrier, Max Headroom
The Pacer, Sade

Home Inventory
Graphics: Light Fantastic
Utilities:
1571 Utility DIR@828
Disk Filer ***And More...***

Disk Magazine Seven — $12

Utilities: Anti-Isepic, Sledgehammer, Fast Format, Renumber, PS/PM/NR, PS Printer, Graphics Editor.
Other: Joystick Tester, Irish Jokes, Convertor, Ultimate Writer, Home Finance, Oscilloscope, Dice Roller, Chord Maker, Dark Forest, Don Martin, Funny, Music Classics.
Demos: Karate Kid II, Thrust Concert, 3D Demo, and more.
For 128: Bootmaker 128/64 Utility, Convert Basics utility.

Disk Magazine Eight — $12

Utilities Track and Sector, Function Keys, Unscratched, Relocatable directory, Tape Rename
Home/Business Calendars, Chequewriter, Screen clock
Graphics ESCOS version 2.99, Newsroom Camera, Clear Screen, Future Writer , Demos, Enterprise II, Eddie Murphy
Games A super special for issue 8.

Disk Magazine Nine — $12

C64 14 graphics and music demos
Little Invoicer Sprite Clock
Sprites in the Border

C128
128 Disk Filer
128 Block Reader
Three music programs

Disk Magazine Ten — $12.95

Cup challenge - sailing simulation
Amiga memories
Define your function keys
Compiled Appointment Manager

Escos with Music
Othello Look-alike
Demos and music

Disk Magazine Eleven — $12.95

Education: Equation Manipulation, Linear Equations, Probability. Utilities: 80 Characters, Graphic Converter, Batch line number deleter, Function key definition, System call locator Dos utilities: Fix directory, Text search, Disk tidy, Drive aligner, Disk doctor. Hi-res jigsaw puzzle. Geos printer drivers. Demos.

Disk Magazine Twelve — $12.95

Appointment Manager 2.1 - now with print and search facilities. Third Term - comms program, dozens of features, menu driven. Panes - windowing system. Time Crystal - Interactive graphic demo. Atlantis - undersea fast action shoot-em-up. Circle Navigation, Education Programs, Music, and **lots** more

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Texts :
vendors US Amiga dealers' names and addresses.
cardco fixes to early Cardco memory boards.
CInclude cross-reference to C include files.
mindwalker clues to playing the game well.
slideshow make your own slideshows from the Kaleidescope disk.

AMICUS DISK #13

AmigaBasic Programs :
Routines from Carolyn Scheppner of CBM Tech Support, to read and display IFF pictures from AmigaBasic. With documentation. Also included is a program to do screen prints in AmigaBasic, and the newest BMAP files with corrected convertFD program. With example pictures and the savelLBM screen capture program.

Routines to load and play FutureSound and IFF sound files from AmigaBasic, by John Foust for Applied Visions. With documentation and C and assembler source for writing your own libraries, and interfacing C to assembler in libraries. With example sound.

Executable programs :
gravity Scientific American, Jan '86 gravitation graphic simulation.

Texts :
MIDI make your own MIDI instrument interface, with documentation and a hi-res schematic picture.

AMICUS DISK #14

Tools :
Dan Kary's C structure index program.

AmigaBasic Programs :
BMAP reader by Tim Jones.
IFFBrush2BOB by Mike Swinger.
AutoRequester example.

Executable Programs :
DOSHelper windowed help system for CLI commands.
PETrans translates PET ASCII files to ASCII files.
CSquared graphics program from Scientific American, Sept '86.
crlf adds or removes carriage returns from files.
dpdecode decrypts Deluxe Paint, removes copy protection. queryWB asks Yes or No from the user, returns exit code.
vc visicalc-like spreadsheet, no mouse control. view views text files with window and slider gadget.

oing, sproing, yaboing, zoing are sprite-based boing! style demos.

CLIClock, sClock, wClock are window border clocks.

Texts :
An article on long persistence phosphor monitors, tips on making brushes of odd shapes in Deluxe Paint, and recommendations on icon interfaces for Commodore-Amiga.

AMICUS DISK #15

C Programs :
pr a file printing utility, which can print files in the background, and with line numbers and control character filtering.
fm displays a chart of the blocks allocated on a disk.
ask questions an 'execute' file, returns an error code to control execution in that batch file.
stat an enhanced version of the AmigaDOS 'status' command.
dissolve random-dot dissolve demo displays IFF picture slowly, dot by dot, in a random fashion.
popCLI2 invoke a new CLI at the press of a key.

Executable programs :
form file formatting program through the printer driver to delect print styles.
diskcat catalogs disks, maintains, sorts, merges lists of disk files.
PSound SunRize Industries' sampled sound editor and recorder.
iconmaker makes icons for most programs.
fractals draws great fractal sea- and mountainscapes.
3D breakout breakout in a new dimension. requires 3D glasses. [very good with the glasses, almost impossible without].
amigamonitor keep track of what's going on in the machine. displays lists of open files, memory use, tasks, devices and ports in use.
cosmoroids version of asteroids for the Amiga.
sizzlers high resolution graphics demo written in Modula-2.

Texts :
ansi.txt explains escape sequences the CON: device responds to.
Fkey includes template for making paper to sit in the tray at the top of the Amiga keyboard.
spawn programmers document from Commodore Amiga, describes ways to use the Amiga's multitasking capabilities in your own progs.

AmigaBasic Programs :
grids draws sound waveforms, and hear them played.
light a version of the TRON light-cycle video game.
migasol a game of solitaire.
stats program to calculate batting averages.
money try to grab all the bags of money that you can.

This disk also contains two beautiful IFF pictures, of the enemy walkers from the ice planet in Star Wars, and a picture of a cheetah.

AMICUS DISK #16

juggler demo by Eric Graham. a robot juggler bouncing three mirrored balls, with sound effects. Twenty-four frames of HAM animation are flipped quickly to produce this image. You control the speed of the juggling. The author's documentation hints that this program might someday be released as a product

IFF Pictures :
parodies of the covers of Amiga World and Amazing Computing magazines.

C Programs :
inputhandler example of making an input handler.
filezap3 binary file editing program.
showprint displays IFF picture, and prints it.
gen program indexes and retrieves C structures and variable declared in the Amiga include file system.

Executable Programs :
fixhunk2 repairs an executable file for expanded memory.
ms2smus converts Music Studio files to IFF standard SMUS format. This program may have a few bugs, especially in regard to very long songs, but it works in most cases.
missile Amiga version of the Missile Command video game.

Flight Simulator :
This disk also contains several files of scenarios for Amiga Flight Simulator II. By putting one of these seven files on a blank disk, and inserting in the drive after performing a special command in this game, a number of interesting locations are preset into the Flight Simulator program. For example, one scenario places your plane on Alcatraz, while another puts you in Central Park.

AMICUS DISK #17

Telecommunications disk which contains six terminal programs.

Comm v1.33 terminal program with XModem, WXmodem.
ATerm v7.2 terminal program includes Super Kermit. VT-100 v2.6 Dave Wecker's VT-100 emulator with XModem, Kermit & scripting.
Amiga Kermit v4D(060) port of the UNIX C-Kermit.
VTek v2.3 Tektronix graphics terminal emulator based on the VT-100 program. fully documented.
AmigaHost v0.9 for Compuserve. Includes RLE graphics ability and CIS-B file transfer protocol.

Useful Utilities :
fixhunk expansion memory necessity.
fixobj removes padding from files received by XModem, etc.
txt filters text files from other systems to be read by the Amiga.
addmem for use with non-auto-config memory expansion.
arc pack/unpack files and compress for transmission.

AMICUS DISK #18

Logo Amiga version of the popular computer language, with examples.
TV*Text demo version of the TV*Text character generator. [it seems that you must CTRL-A-A to get out]
PageSetter freely distributable versions of the updated PagePrint and PageIFF programs for the PageSetter desktop publishing prog.
FullWindow resizes any CLI window using only CLI commands.
Life3D 3D version of Conway's LIFE program.
Defdisk CLI utility to re-assign a new Workbench disk. Calendar.
WKS Lotus-compatible worksheet that makes calendars. [a layout only - this is not executable]
setkey demo of keyboard key reprogrammer, with IFF picture to make function key labels.
VPGen video pattern generator for alligning monitors.
HP-10C Hewlett-Packard-like calculator.
SetPrefs change the preference styles to any system-configuration file.
StarProbe program studies stellar evolution.
ROT C version of Colin French's AmigaBasic ROT program from Amazing Computing. ROT edits and displays polygons to create three dimensional objects. Up to 24 frames of animation can be created and displayed.
Scat Like Ing, windows on screen run away from the mouse.
DK decays the Workbench away into dust, written in Modula-2.
DropShadow2 adds layered shadows to Workbench windows, adjustable.

AMICUS DISK #19

This disk contains several programs from Amazing Computing. The IFF pictures on this disk include the Amiga Wake part T-shirt logo, a 16 colour hi-res image of Andy Griffith, and 5 Amiga Live! pictures from the Amazing Stories episode that featured the Amiga.

Assembler Programs :
Solve Linear equation solver in assembler.

AmigaBasic Programs :
Gadgets Bryan Catley's AmigaBasic tutorial.
HouseHold Bryan Catley's AmigaBasic household inventory program.
Waveform Jim Shield's Waveform Workshop in AmigaBasic.
DiskLib John Kennan's AmigaBasic disk librarian program.
Subscripts Ivan Smith's AmigaBasic subscript example.

C Programs :
String,Boolean C programs and executables for Harriet Maybeck Tolly's

intuition tutorials.
Skinny C Bob Riemarsma's example for making small C programs.
COMAL.h make C look like COMAL header file.

Executable Programs :
EmacsKey makes Emacs function key definitions, by Greg Douglas.
AMon 1.1 snoop on system resource use.
BTE Bard's Tale charater editor.
Size CLI program shows the size of a given set of files.
WinSize CLI window utility resizes current window.

AMICUS DISK #20

Compator,decoder Steve Michel AmigaBasic tools.

BobEd Bob and sprite editor written in C.
SpriteMasterII Sprite editor and animator written by Brad Kiefer.
BlitLab Blitter chip exploration C program by Thomas Rokicki.
FPic image processing program by Bob Bush loads and saves IFF images, changes them with several techniques.
Bankn complete home banking program.

AMICUS DISK #21

Target Makes each mouse click sound like a gunshot.
Sand simple game of sand that follows the mouse pointer.
PropGadget Harriet Maybeck Tolly's proportional gadget example.
EHB checks to see if you have extra-half-bright graphics.
Piano simple piano sound program.
CelScripts Makes Cel animation scripts for Aegis Animator, in AmigaBasic.

This disk also contains electronic catalogs for AMICUS disks 1 to 20 and Fish disks 1 to 80. They are viewed with the DiskCat program, included here.

AMICUS DISK #22

Cycles light cycle game.
ShowprintII views and prints IFF pictures, including larger than screen.
PrtDrvGen2.3 latest version of a printer driver generator.
Animations VideoScape animations of a plane and a Boing ball.
Garden makes fractal gardenscapes.
BasicSorts examples of binary search and insertion sort in AmigaBasic.

AMICUS DISK #23

This disk contains:

1. Instruments - noncopyrighted instruments used to play the demonstration scores on this disk. These IFF instruments can also be used in Instant Music, Deluxe Music, Deluxe Video, SoundScape, and Sonix.

2. Music - Songs that can be played with the public domain player SMUSPlay provided on this disk. The scores are limited because they are the only ones I could find that are not copyrighted songs. If you like the limited selection of music here, CAMEO suggests you buy one of the commercial music programs for which there are many scores are available in the PD.

3. MCraft2SMUS - This is a program to convert old Pre-Release version MusiCraft scores to SMUS (an IFF standard). Once in SMUS they can be imported into Deluxe Music, Sonix, or others.

4. 1812Overture - The full 1812 Overture by Tchaikovsky, since this is over 18 minutes of music complete with Cannons your computer must have more than 512K of memory to play it.

5. SMUSPlay - This is a public domain program that plays songs in the SMUS format. It is used to play the songs in the music directory.

6. ListINSTR - A handy utility to list the instruments required to play a song. This is necessary because several programs simply say "Cannot find instrument", and do not tell you which instrument is missing.

7. MStudio2SMUS - This program converts Music Studio songs to the SMUS format. The advantages of this are described above.

Special thanks for this disk goes to Rick Wirch and the Commodore Amiga Madison Enthusiasts Organization of Madison, Wisconsin.

AMICUS DISK #24

BNTools - Three examples of Assembly language code: Setlace, Why and Loadit
Daisy - Example in C of using the Translator and Narrator devices to make the Amiga talk
CodeDemo - Modula-2 program converts assembler object files to inline CODE statements, comes with screen scrolling example
VirusCheck - Several programs for finding and eliminating the SCA virus, and an explanation of it
BoingMachine- Ray-traced animation, with Movie program which can play sounds along with the animation
AmiBug - Workbench hack
Sectorama - Disk sector editor, recover hard disk files, etc.
DGCS - Deluxe Grocery Construction Set...
bmon - System monitor AmigaBasic program
Moose - Random background program, Bullwinkle says witty things, user-definable
MonoLace - Resets Preferences to several colours of monochrome & interlace screens; source included
Iconize - Reduces the size of IFF images & companion program
Recolor remaps palette colours - you can make icons look like miniatures of pictures
QuickFlix - Script-driven animation and slideshow program flips through IFF images

AMICUS DISK #25

Nemesis - Fine music and space graphics
KickPlay - Text describing patches to the Kickstart disk, for the A1000 - Addmem for old expansion memory; change the Workbench Hand picture; restore_correct Checksums
KeyBrd - Edit, adjust or create keymaps
8ColorWB - Modifies Workbench to allow 8 colours; use with Dpaint and Zapicon and Brush2Icon .
BrushIcon - Converts brushes to icons
Egraph - Graphing program, reads [x,y] values to the screen
Keep1.1 - Message-saving program for telecommunications
Kill.fastdir- Removes CLImate's fastdir files
LaceWB - Changes Workbench from Interlace to Non-interlace and vice versa
PW_Utility - Prowrite utility to change margin settings and font types
Guru - Prints out probable causes for Guru errors, C

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Mlist - Mailing list database
SoftBallStats - Maintain softball stats
Dodge - Modula2 program for moving Workbench screen around after a time, to prevent monitor burn-in

AMICUS DISK #26

Soundscape - Todor Fay's code for Echo, Chord, TX, and WU, along with executables
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s to Postscript files for laser printing
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TCB - Prints info about tasks in the system
FunBut - Lets a function key act like a rapid series of mouse clicks
DC - Sends a "Diskchange" message via an icon
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Dick2Ram - 2 programs to move the Scribble! spell checker to
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Lexical - Analyses a text file and gives readability scores
HexDump - Modula2 program to display memory locations in hex
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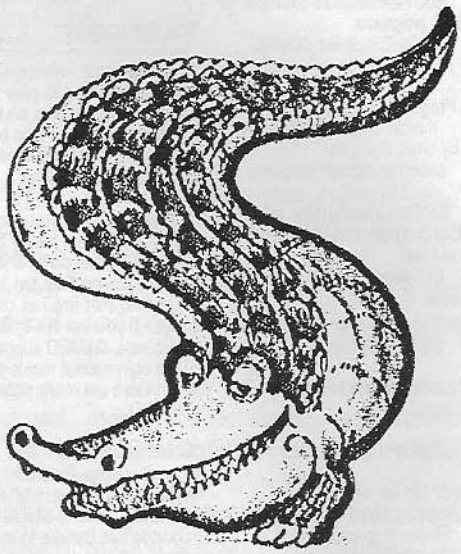

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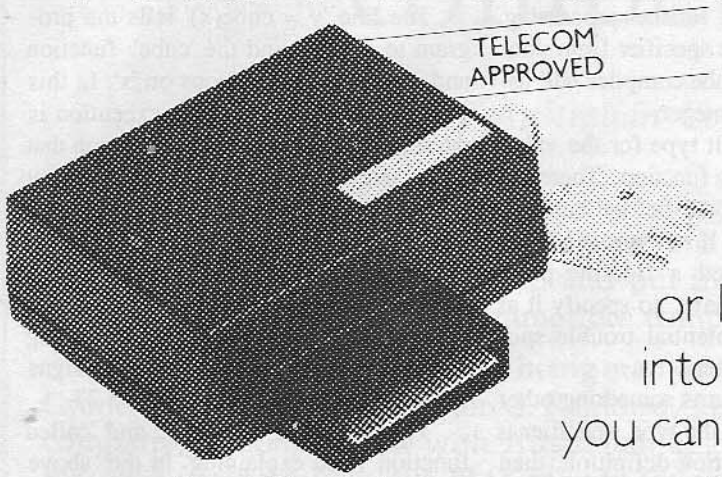

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How to Function in C

Introduction to C Programming Part IV

By Adrian Sheedy

SINCE C is a function oriented language, new functions can be easily created to perform specific tasks. Although there are only just over thirty keywords in C there are many standard and special functions which are supplied with compilers to make life easier for you.

It is often said by proud C programmers that C has only ten percent of the keywords that BASIC has. This may be true, but there are many functions which you will need in order to program efficiently. i.e. keywords in BASIC are like functions in C, with one important difference: in C functions can be adjusted or written to suit your needs.

The aim of the new programmer is to build a library of personal functions which you can link with and use from any program you write. Once a function has been written and tested it doesn't need to be written again. Most of the ground rules for doing this will be described now and in subsequent instalments of this tutorial.

Defining a New Function

All functions take this form:

```
type-specifier function name(variable
list) variable declarations;
        {
         statements or
         function body;
        }
```

Here is a useful example:

```
int cube(number)
int number;
    {
    number = number * number *
    number;   return(number);
    }
```

'int' is the type specifier in this example. It indicates what type of data will be returned to the function which called 'cube' when it finishes processing. If you omit the type specifier from your function definition the compiler will assume you want an integer.

'int' is the default type for the value to be returned from a function. Therefore we don't need this 'int' before 'cube' in the example above. If we wrote a function which returned a floating-point number we would have to specify it as 'float'. This is a potential trouble spot for the C programmer.

If a function returns something other than an integer, but the type specifier is left out of the function definition, then in most cases garbage will be returned by the function. Or sometimes correct values will be returned, and other times garbage.

One thing is for sure, leaving out the type specifier is a good way to test Murphy's Law. Because of this potential for errors to occur, it is good programming practice to state the type specifier for all functions.

Return Values

Program control is given to a function this way:

```
main()
    {
    ...
    x = 3;
    y = cube(x);
    ...
    }
int cube(number)
int number;
    {
    number = number * number *
    number;   return(number);
    }
```

The line 'y = cube(x)' tells the program to go and find the 'cube' function and perform its operations on 'x'. In this case 'x' equals three when execution is passed to 'cube'. Three dots '...' mean that other relevant commands are carried out in these parts. The value of 'x' is given to the new variable 'number', which is three.

The 'return(number)' command returns the new value of 'number' to the calling function (which is 'main()'), and assigns this value to 'y', which would be 27.

Terms 'calling function', and 'called function' need explaining. In the above example 'main()' is the calling function of 'cube' because it is calling 'cube' to perform a function for 'main()'; and 'cube ()' is therefore the called function. As expected, when the called function does its job, program control is returned to the calling function.

There are other ways we can return control to the calling function. We don't need to return a value to a variable in the calling function. For example, a function which waits for the user to press <enter> before continuing has no relevant details to pass back to the calling function:

```
int pause()
    {
    int a;
    a = getchar();
    return;
    }
```

This is the same as the 'return' statement in BASIC. Since we use the variable 'a' in the function, we must define it before it is used. Remember that pro-

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gram control, not a value is returned to the calling function. 'pause()' would be called this way:

```
main()
    {
    ...
    pause();
    ...
    }
```

The risk associated with no-value-returning functions is sufficiently great that there is a data type called 'void' which is designed to warn the programmer of any breach of the rules. You can't rely on just the type specifier to tell you what is returned from a function.

The 'void' type tells the programmer never to use the function in an expression, as in the 'y = cube()' example. So it would be best to write our 'pause()' function this way:

```
void pause()
    {
    int a;
    a = getchar();
    return;
    }
```

Function Definitions and Declarations. When defining a function there is no semicolon after the function name. In omitting the semicolon we are telling the compiler that we are defining a function, not using it. This is describing the code that is the function, not using it. The line

```
void pause();
```

with a semicolon (as opposed to the example above which has no semi- colon) is a function declaration.

It declares what comes back from the function, and would be found in a section early in a program which would declare all the functions used throughout the program. Forgetting to declare functions that return non- integer values to the calling function is a common C programming mistake.

A function declaration tells us what type of data a function returns, whereas a function definition tells us how that data type is actually produced i.e. it contains the body of the function. It is easier to remember that declarations give you a glimpse, definitions give you the whole picture.

Variable Lists

The variable list contains the variables that pass to the function any information needed to perform the functions task. There can be no variable list, or a number of variables separated by commas. Here is an example of multiple variables being used by a function:

```
int volume(l, h, w)
int l, h, w;
    {
    int vol;
    vol = l * h * w;
    return(vol);
    }
```

Variable Declarations

Each variable in the variable list must be declared. Because values are handed to the function, it needs to know what type of data these values actually are. So these declarations are for communication purposes. Note that there must be a semicolon after the declarations. And also the declarations must appear before the open brace of the function body.

Function Body

The open braces mark the beginning of the function body, and close braces the end of both the function body and the function definition. All variables used in the function body must be declared either after the open brace, or in the variable declarations just before the open brace.

In the 'cube()' example 'number' is the only variable used in the function body and is declared before the open braces. It therefore does not need to be declared in the function body.

Keep one rule in mind: A function cannot be defined within a function. This example is illegal:

```
int first_function
    {
    ...
        int second_function
            {
            ...
            }
    }
```

Next time we will provide an explanation of why we need an argument list in the first place, and why we need to pass variables. We will also discover some interesting facts about how long variables live, and how they reincarnate.

C64 Basic BASIC, a tutorial for beginners Part 4: by Oben Candemir

SINCE THE first issue we've really come a long way, haven't we? This is the most critical time now, though. The whole of the BASIC language is just about under your belts now. Some people think that because they now know all the commands they are able to program. Don't fall into this trap, programming requires more discipline than this!

In this issue I hope to show you string (if you don't recall what a string-manipulation commands is then go back and learn it again) manipulation commands & some of the finer points of the commands we've learnt. More complex program examples are included and you should take the time to go through these carefully.

The string manipulation commands are the following:

LEN STR$() VAL RIGHT$(..) LEFT(..) MID$(...)

CHR$() ASC()

These commands can be used to enhance our usage of strings in programs. After all, programs must 'talk' to the user through the use of strings. It is only fair that we use the functions BASIC provides us to make programs more user friendly. That is a thing I'll really begin to stress from now on!

Anyway back to strings. We already know that strings can be concatenated (fancy word for 'added' or joined), these commands basically allow us to sort through strings for information or change strings to variables and vice versa. ASC & CHR$ are something else and the significance of these will be explained later.

The first command is LEN which allows us to determine the length of a string which the user has entered. Its template or usage is:

LEN(string$) ... where string$ is any valid string name.

This will return the length of the string. An example is:

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A=LEN(NAME$)

'A' is assigned the value which LEN returns. This number may now be used for whatever purpose you intended.

STR$() is a bit of an under-used command. It can be used to convert a variable containing a number into a string expression which can then be manipulated with the various commands. Remember that number variables don't offer such useful facilities. So if you ever need to manipulate a number, first use this command to convert it into a string. Example:

CONVERTED$=STR$(A)

If 'A' contained the number 123 then this would be equivalent to saying CONVERTED$="123" but more useful because 'A' can come from anywhere whilst the latter is fixed to one value. See the difference?

VAL is the exact opposite of STR$, it converts a string to a number. Note that it's NOT a facility to convert strings like 'The cat jumped over the lazy fox' into the equivalent number expression. Rather, it converts a string such as "123" into the number value 123 ie. strips it of its 'stringiness'. Example:

NUMBER=VAL(S$)

If 'S$' was "123456789" then the variable NUMBER would now be equal to 123456789. Easy eh??

Now for the three most useful string operators, LEFT$, RIGHT$, MID$. These commands are used to extract portions of strings. First I'll give you the templates and then explained examples on these three commands.

LEFT$ is used like this:

(string$)=LEFT$(X$,N)
string$ is any valid string name.

This assigns the string variable string$ the leftmost N characters of the string X$. For example LEFT$(NAME$,3) assuming NAME$ holds "lisa" would return the three leftmost characters "lis" of NAME$ ie. "lisa".

RIGHT$ is used:

(string$)=RIGHT$(X$,N)

This does exactly what LEFT$ does but this time returns the rightmost N characters of X$. Using the same variables as in the last example RIGHT$(NAME$,2) would return "sa" from the string NAME$ which is set to "lisa".

MID$ offers a bit more power than the former two commands. It is used thus:

(string$)=MID$(X$, M ,N)

What this means is that MID$ returns N characters of X$ starting at the Mth character. So using MID$(NAME$, 2, 2) where NAME$ is "lisa" would return two characters of "lisa" starting at the second character, ie. "is".

I hope that all of this has been understood. To firm all this in your mind it is recommended that you try all the commands in an example program. Devising the exact program is up to you, and you can use it as an exercise as to how much you've learnt.

However, you may like to approach it by assigning a couple of strings of decent length and then manipulating these with the commands. Afterwards you could print the results with the good old PRINT command and see what you get and whether they were the same as you expected.

The two other commands which I've left till last are CHR$() and ASC(). These commands require extra knowledge on computer standards, namely the ASCII standard code, so here it goes.

The problem with computers these days is that a very diverse range of hardware and software has emerged. You can't simply bung an IBM diskette into a Commodore 64 drive and expect to whiz and work! They use different formats, and therefore are incompatible.

It may be too late to rectify this problem now, but certain standards have emerged to lessen it. One is the ASCII code (don't expect me to whiz off the meaning of the characters because I've long forgotten, but it's something like 'American Standard ... something or other!) which is a code to identify each printable character with a unique number. The thing is that all computers (telexes etc) use the ASCII code. So a 65 in ASCII stands for the capital letter 'A' on every computer you try it on. A whole list of these character codes can be found in the back of your *64 User's Manual* (if you don't believe me look for yourself). These numbers/characters can be used with the CHR$() and ASC() commands.

ASC() returns the ASCII number of any character passed to it. So PRINT ASC(A$) where A$="A" would print a 65.

CHR$() returns the character which is associated with an ASCII code number. So that PRINT CHR$(65) would print an 'A'. The importance of this may not be too apparent, but just ask yourself how you're going to print a 'carriage return' when you require it (in a sequence to the printer for example)? Hitting <return> within inverted commas in a PRINT statement won't work! Here CHR$ comes to the rescue. If you look in your ASCII table you'll see that a 'carriage return' has a character code value of 13. Therefore a PRINT CHR$(13) should accomplish the trick!

I must stress again that you should go to the trouble of using these commands in your programs because they'll be so much more powerful and generalised than would otherwise be the case. This month's issue didn't contain any program examples, but I'm sure that you are good enough by now to be able to use the commands I give you, in a program. For this month though, that is all! Till next time, stay programming. ■

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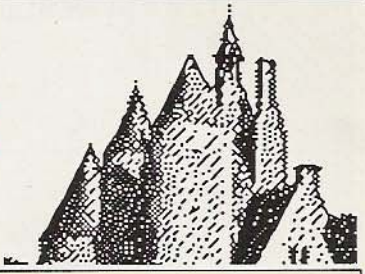
Adventurer's Realm

by Michael Spiteri



Welcome once again to the dank and misty caverns of the Realm, Australia's only adventure column dedicated to Commodore users.

This month we have Part 1 of Realm's Super Tips, while in the Dungeon, Kamikaze Andy starts a series on the history of Role Playing Games. Then last, but not least, Barry Bolitho brings us up to date with all the hottest news in War Games.

If you would like to write to the Realm for anything to do with adventures (you could be stuck or could give help, or just give some views!) then enclose a stamped addressed envelope and write to:

Adventurer's Realm 1/10 Rhoden Court
Nth Dandenong Vic 3175

If you have any queries, mark the envelope "Wargame Section" and I'll see that Barry Bolitho receives your letter.

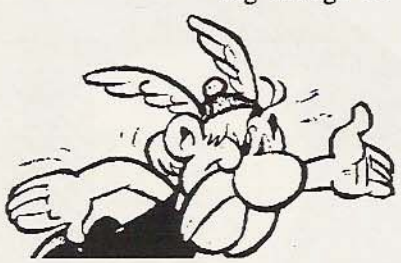
Role-Playing freaks can write to Kamikaze Andy if any problems occur, and his address is:

The Dungeon, 44 Hawkesbury Drive
Willeton, WA 6155

Free hint sheets

The following hint sheets are available free of charge from the Realm (Victorian branch only). *Zork 1,2,3*, *Hitchikers Guide*, *NeverEnding Story*, *Pirate Adventure*, *Adventureland*, *Borrowed Time*, *Dracula*, *Pawn*, *Bards Tale*, *Faery Tale*, *Castle of Terror*, *Hobbit*, *Lord of the Rings*.

Make sure you enclose an envelope big enough for the you



The Dungeon

by Kamikaze Andy

Hello, all you RPGer's out there! This month I've decided to begin an article on the various types of formats of computer RPG's available to users today. The article will discuss various aspects of RPG systems, as well as compare certain systems with others.

Computer role-playing games

Computerized RPG's began way back in the late 1970's when a US software company, California Pacific, released a program called *Ultima*. Although not the very first RPG, *Ultima* was considered a landmark achievement and soon more RPG's appeared, including *Wizardry* and *The Temple of Apshai*.

What appealed most to gamers was the relative freedom which your computer alter-ego possessed. Unlike normal adventures (mostly text-based), RPG's could simulate entire dungeons or even entire worlds in which to explore. As time passed, all the forms of software improved in quality owing to the develoepement of better computer systems, and so too did RPG's. Today, one has only to boot up *Dungeon Master* on the Amiga to appreciate the realism bestowed upon RPG's by modern technology.

In the beginning

Most RPG's involve the creation of a character (or group of characters), and then letting the character roam a specific scenario. Often your character has to complete quests in order to advance their statistics and unwittingly finish the game. What's this? Statistics? Yes, your character comes complete with a certainitially receive.

Most games allow for magic points to be part of one's attributes. Magic points determine your ability to cast spells, and as such are vital to most RPGs. Wizards possess a dazzling array of offensive spells, defensive spells, and others such as 'detect door' spells or 'disarm chest' spells. Often wizards can use spells to heal or resurrect other party members, so they are important!!

Once you have chosen your characters, it's time to boogie and bash some orcs. Onwards to adventure, HO!

(To be continued ...)

Wargaming the Realm

by Barry Bolitho

Ross Moore of Bellata NSW has sent in heaps of wargame tips and strategies, however he also has a problem.

"I have difficulty satisfying victory conditions in *Conflict in Vietnam*," he writes. Well, so do I, Ross, so do I. I feel that some wargame designers get it so right that they actually do recreate the tactical problem as it really was. A friend of mine paid SSI's 'Nam simulation a backhand compliment when he declared.. "It's not fair - they pop out of the bushes, zap you, then disappear before you can concentrate any firepower on them!" That does sound familiar. In *Conflict in Vietnam* you can overcome this NVA tactic by using mortars, artillery and helicopters to engage the enemy and pin him down. That is, if there are enough assets available. Any comments or tips on *Conflict in Vietnam* would be appreciated by both Ross and myself.

One problem common to most letter writers is where to buy wargame software (Mike has the same comment from his adventurers). Have a look at the major

mail-order firm that advertises in this magazine. They stock a comprehensive range of software for both the Amiga and C64.

Realm's Adventure Chit-Chat

Paul King of Waratah West (NSW) writes:

"As I was reading the January issue of the Adventurer's Realm, I was surprised to see that someone else has been playing *Drack*, as I thought your readers would only play the expensive games, seeing that my tape of *Drack* was on special for $9 at K-Mart."

MS: Although K-Mart haven't got a great reputation as far as service is concerned, they very frequently 'throw out' excellent games for below pocket money. I'm sure there are many other adventurers who stick to the nice cheap adventures, since this is usually all they can afford.

Problems, Problems, Problems!!!

This month's problems section is very much shrunken down to allow more space for juicy tips.

Nick Van Heeswyk of Mt Gambier (SA) is stuck in two adventure games.

1) In *Aztec Tomb*, Nick wants to know where he can find a map, and if the tree is climbable.

2) In *Adventure Castle* (MS: Never heard of it!!), how do you get rid of the batty bat that battles the battalic staircase. Also, how do you get the gold coins in the fountain?

Scott Bullock of Alex Hills in QLD is having parmucles in *Robots of Dawn*. He want to know how to open the safe and to charge the blaster.

Craig Blackberry of Ulverstone in Tassie is very much stuck in two games:

1) In *Shadowgate*, how do you get the key from the skeleton in the lake, and how do you get through the middle door in the mirror room?

2) In *Guild of Thieves*, Craig wants to know how to get the chalice from the bear without him killing you. Also, what do you do with the beating heart and how do you get to the steps in the room with the burning coals?

Paul King is stuck in a certain *Erik the Viking*. He has managed to put to sea in the good ship *Golden Dragon*, but has been unable to mend the leak, with the result the ship sinks and the game ends.

Super Hints Part 1

Well, it's been a long time coming, but it's finally here. Over the next few months I'll be printing heap and heaps of hints and tips which have been sent to me in the form of hint sheets, solutions, and maps over the last two years. So, enjoy!!!!

African Safari

Don't take the metal rod on board the boat!!

Adventure Quest

To rid yourself of the sphinx, from the edge of the Fertile Land, move n.n.n.w.n.look.e.e.e The rocky outcrop will secure you from the worm.

To move the slab of rock, say OPEN SESAME.

Give the sundial to the sun-priestess in the pyramid.

To pass the tentacled creature in the orc-tower, throw the ruby at it.

The giant is scared off if you have the wave the sling at him. You need the ball from the tree-top in the forest.

Get the snowman to drop rocks on the orcs.

To get past the Djinn, take the bag of wind from the room in the orc-tower, and open it near the Djinn.

Colossal Cave

Throw the eggs to the troll, then fee fie foe foo.

Say plover at y2 to get to the dark room beyond the crack.

Crystals of Carus

A cross is ideal for attacking a wraith.

Rub the lamp for something of value. Give the begger what the lamp gives you.

Corruption

Listen to the conversation in Hughes' room via the door.

It's wise to try calling David from Maggy's telephone between 11:20 and 11:25. Also, try calling Hughes from Theresa's telephone between 12:05 and 12:10.

If your BMW is acting up, get out as fast as you can!!

Remember to ask David about Jenny and about the letter. When having lunch with Jenny, ask her about the letter and shot it.

To remove your beard, buy the soap and razor from the pharmacy. Wet the soap in the sink, then rub it on your beard.

Deadline

There is a vital piece of evidence in the rose garden. Wait until Angus appears to be in a rage, then ask him what's wrong.

The notepad and pencil provide a very important hint when brought together.

If the kitchen seems bare of clues, try counting things.

The newspaper is also important - make sure you read ALL of it.

The will reading is the beginning of the end - miss something and you may not get to solve the case.

Perhaps the person who is most obviously the murderer is even more obviously not. Still, show him the calender (pages turned), then go hide in the study.

Emerald Isle

To get to the north platform, take the small key from the hollow near the marshes. Dropping the plank across the dangerous section will help. Examine the boulder to find the key. Use this key to wind the clock at the plaza. The townsfolk will give you an ornate key, which can be used to open the gate on the platform (south).

Fahrenheit 451

Get the fingerprinter from thieves at W45-46 (ask woman).

Get chemidexer from Dr Foster's office, using paper clip to open the cabinet.

Buy something from the Jewellry Emporium to see an Engraver.

Want a face change? Visit the magic shop.

Avoid crossing Fifth Ave by any method other than the walkway e44-45 and w44-45.

Leather Goddesses of Phobos

Read the comic accompanying the game. There are some important hints in it which will help you to translate the alien's message and help you survive the catacombs.

To kiss the frog you need the clothes pin and the lip balm.

The can of black stain is useful for the black circle.

Chocolate helps you to open the bars of a gorilla's cage.

Show the painting to the white mouse.

To get past the flytrap you must kiss at it (This hint is found on the scrap of paper you find in the cell).

Need some untangling cream? Try using the T Machine and one of the King's angles.

Thorbala - fight with her until she loses her sword. Grab the sword and hand it back to her.

The rabbit, sack of leaves and rake are red herrings (though for fun, put the rabbit in the T Machine).

Labyrinth

Congratulate the wall to escape from the Wall of Hands.

Always use the shears to get further in the maze.

At the Stone Faces, insult them to get free hints.

At the Bog of Eternal Stench, use the leg to negotiate the bog. Call Ludo if the bridge is down.

In the Underground, drop the log when slasher appears.

Perry Mason

After Paul investigates Suzanne, get Della to Barstow's Dog Kennels.

Get Della to call Epicure. Following Paul's investigation of Margot Duboq, get Della to call Brannigan.

Wait gives the witness a chance to regain composure.

Thanks to all who contributed the above tips to the Realm over the past year or so. Part 2 of Super Tips will be in the next issue.

Guide for contributors

EVERY MONTH WE receive dozens of submissions from would be writers. For these we are most grateful. If you have considered writing for the *Australian Amiga and Commodore Review*, here's a few guidelines. The majority of contributions are accepted, however as we have a larger number to choose from these days, a few more stringent guidelines need to be met.

Style: Easy to read, entertaining and informative. We aim to be an enjoyable easy to read publication - with a smattering of technical articles for those so inclined. We are most interested in tutorials, "how to" type articles, and general hints and tips. Programs are also sought after for our disk magazines, Suite 64 and Amiga Live!

Format: Don't include any formatting such as printer controls, centred headings, print styles etc. Put a space after commas or full stops. Do not indent paragraphs. Numbers under 10 should be typed. We prefer contributions on disk - Commodore 64/128, Amiga, MS-DOS and even Macintosh. Don't double space. Just a straight ASCII text file is all we require. We also accept contributions via modem once you become a regular contributor. Baud rates of 300, 1200, 1200/75 and 2400 are supported.

What to include: A brief letter, if it's your first effort. Don't forget your phone number - this is the most important thing! And put your name at the top of the actual article, not just on the letter.

What you get: Fame and a little fortune. Writing is a lot of fun. You'll get payment of $50 per 1000 words - paid about one or two months after publication and a free subscription to the magazine after your third article. We take receipt of the article as permission to publish - you may not always be contacted before we use your article.

Where to send contributions: Post articles directly to *The Australian Commodore and Amiga Review*, 23 Bonnefin Rd, Hunters Hill. Or call (02) 817-0011 to arrange modem transfers. Don't send us your original - we cannot guarantee return, and it may become damaged in the post. Send 5 1/4 inch disks in an Australia Post cardboard Post Pak especially designed for carrying disks. Do *not* use padded post bags - these have a tendency to make the postman want to bend them in half. Amiga disks can just be sent normal mail.

That's it! For a more detailed version of the above, call our office and ask for the complete writers guide. ■

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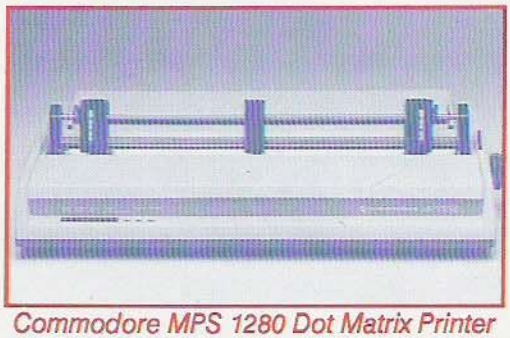

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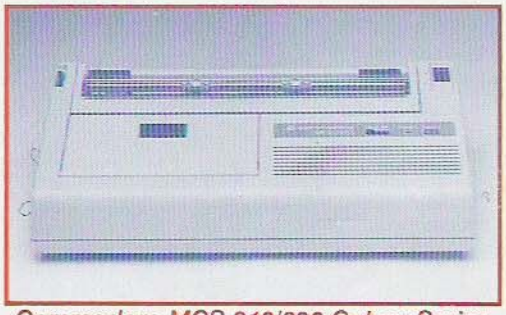

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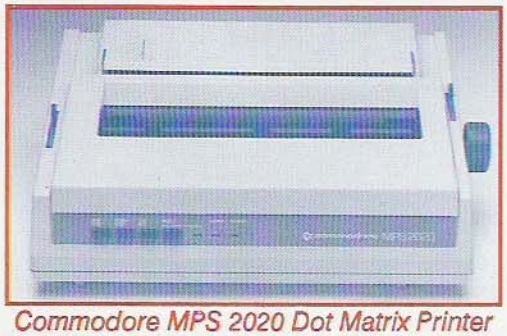

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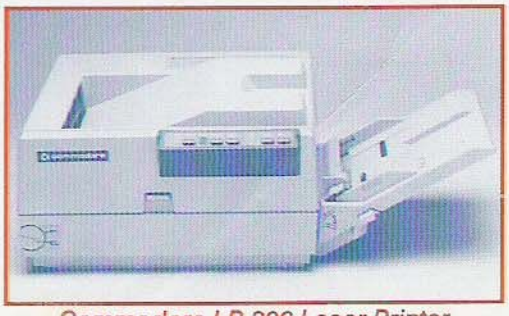

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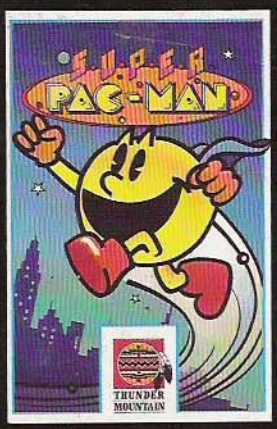

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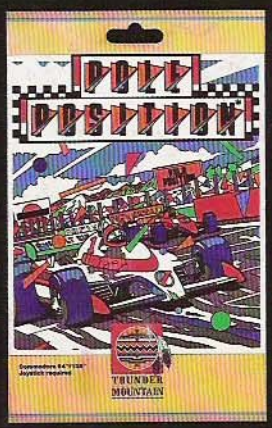

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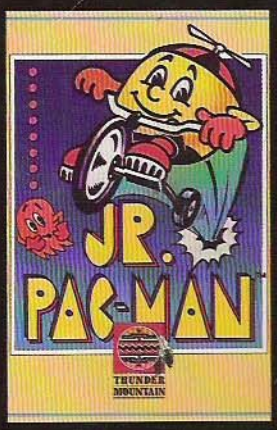

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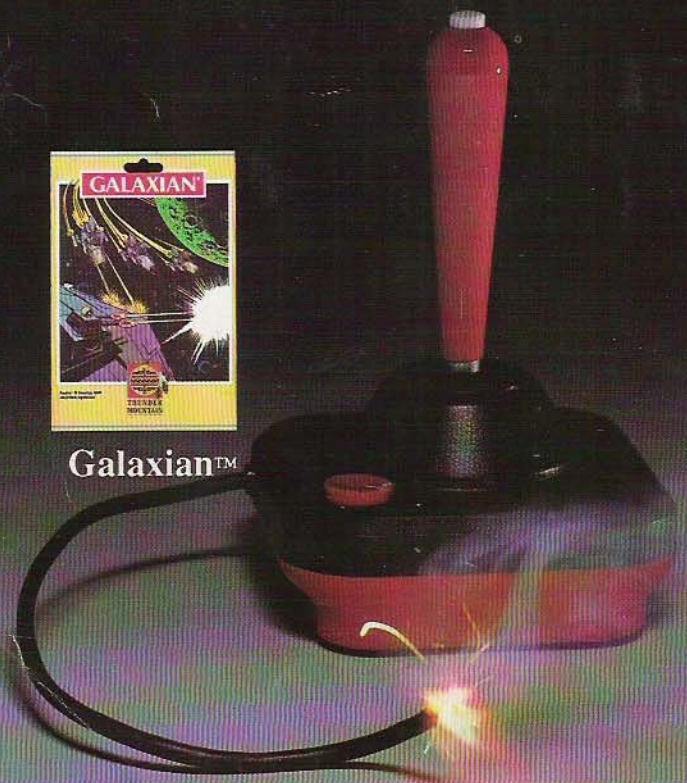

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